- 1095 - 205 - 34 - 7

TM 9-1095-205-34-7

TECHNICAL MANUAL

MAINTENANCE INSTRUCTIONS DIRECT SUPPORT/GENERAL SUPPORT MAINTENANCE

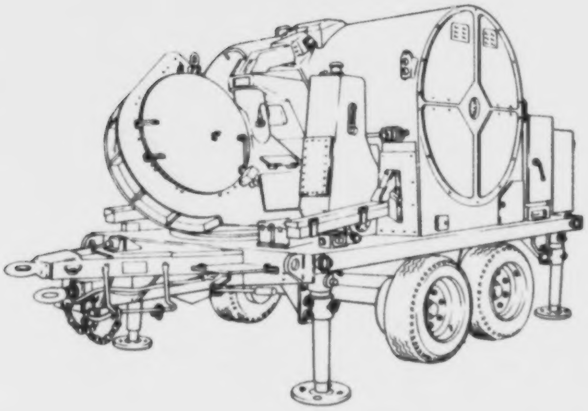
ELECTRICAL WIRING AND CONDUIT INSTALLATION (GENERAL SUPPORT) Page 20-1

APPENDIX A REFERENCES Page A-1

APPENDIX B EXPENDABLE SUPPLIES AND MATERIALS LIST Page B-1

APPENDIX C ILLUSTRATED LIST OF MANUFACTURED ITEMS Page C-1

GLOSSARY Page Glossary 1



M128 GROUND VEHICLE MINE DISPENSER (1095-00-397-3456)

HEADQUARTERS, DEPARTMENT OF THE ARMY

September 1984

READEX FICHE best copy available

D101.11:

WARNINGS AND FIRST AID DATA

WARNING

CARBON MONOXIDE (EXHAUST GAS) CAN KILL YOU

Carbon monoxide is colorless and odorless, but it can kill you. Breathing carbon monoxide causes headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Heavy exposure can cause brain damage or death. Exhaust fumes of fuel burning heaters and internal combustion engines contain carbon monoxide. Carbon monoxide becomes dangerously concentrated when there is no air movement. Always follow safety precautions when the engine coolant heater or dispenser diesel engine is operated for any purpose.

1. DO NOT operate coolant heater or diesel engine in a closed place unless the place has a lot of moving air.
2. DO NOT idle diesel engine for long periods without ventilation.
3. BE ALERT at all times for exhaust odors and exposure symptoms. If either is present, IMMEDIATELY remove affected crew to fresh air. Keep them warm. DO NOT PERMIT PHYSICAL EXERCISE. If necessary, give them artificial respiration.

   FOR ARTIFICIAL RESPIRATION, REFER TO FM 21-11.
4. BE AWARE: the chemical, biological, and radiological (CBR) protective mask WILL NOT protect you from carbon monoxide.

THE BEST DEFENSE AGAINST CARBON MONOXIDE POISONING IS GOOD VENTILATION.

WARNING

Cleaning solvent can explode and can burn. Keep it away from heat or open flame. NO SMOKING. Solvent fumes can make you sick. USE IN A WELL VENTILATED AREA. Keep solvent off your skin as much as you can.

WARNING

Asbestos dust can be harmful to your health. Clean brake assembly parts in ventilated area.

WARNING

Fuel can catch fire and burn you. NO SMOKING. Wipe up spilled fuel. Remove battery ground cable before working on fuel system.

WARNING

You will be injured if dispenser falls on you. Use hydraulic jack to support dispenser during and after removal of leveling jack. Remove and install only one leveling jack at a time.

GO TO NEXT PAGE

WARNINGS AND FIRST AID DATA — Continued

WARNING

You could be hurt if heavy dispenser parts fall on you. Use helper when you remove or install heavy dispenser parts.

WARNING

Flying bits of metal could blind you. Always wear goggles when you cut metal or use power tools.

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

WARNING

Compressed air can hurt you. Never aim air at soldiers or use more pressure than 30 psi (207 kPa). Always wear goggles.

WARNING

Fuel can catch fire and burn you. NO SMOKING. Wipe up spilled fuel.

WARNING

Hydraulic system pressure could reach 3400 psi (23,450 kPa) during startup. A high pressure fluid jet can hurt you. Wear goggles when you check for leaks.

WARNING

Gas that flows into accumulator during precharging is under high pressure. A high pressure gas jet can hurt you. Make sure gas chuck and nitrogen supply connections are tight.

WARNING

Emergency valve drain plug is under pressure and can fly off and hurt you. Open air tank drain valve before you remove emergency valve drain plug.

WARNING

Hot coolant can burn you. Do not get hot coolant on skin. Turn radiator cap slowly to let out pressure.

WARNING

Coolant heater exhaust gases and exhaust tube can burn you. Keep your hands at a safe distance from coolant heater exhaust tube while coolant heater is running.

WARNING

Running the engine and operating the dispenser causes many parts to heat up. DON'T TOUCH any of the following parts when they are hot from use.

- Coolant Hoses
- Exhaust Pipe
- Oil Filters
- Hydraulic Pumps
- Radiator
- Engine Parts

WARNING

Extremely cold and hot parts can injure you. Use gloves when handling extremely cold and hot parts.

WARNING

Launcher guides have sharp edges that can hurt you. Wear gloves when handling launcher guides.

WARNING

Holes in rocker arm shaft have sharp edges that can hurt you. Be careful when you handle rocker arm shaft.

WARNING

Engine parts could hurt you. Stay clear of moving parts when engine is running.

WARNING

Parts rotating at high speeds can harm you. Keep objects away from parts rotating at high speeds.

WARNING

Reel can hurt you when it rotates. Hold reel when removing or installing master link.

WARNING

Launcher can harm you when it oscillates. Make sure manual bypass valve is at OPEN before you move launcher by hand.

WARNING

Air chamber assembly cover is spring loaded and could fly off and hurt you. Hold chamber assembly together during cover removal.

WARNING

Keep away from hanging loads and overhead equipment. Keep hands out of engine compartment when power unit is being removed or installed.

GO TO NEXT PAGE

WARNINGS AND FIRST AID DATA — Continued

WARNING

Spring loaded radiator vanes can hurt you. Do not let vanes snap shut on your fingers.

WARNING

Hydrogen gas from batteries can explode and hurt you. Do not allow sparks near batteries. Battery acid can burn or blind you. Do not get acid on your skin or eyes.

WARNING

Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, including watches, or let ID tags hang down, when working on the electrical system. Keep tools away from posts, wires, and terminals.

WARNING

A short circuit can cause welding heat. Make sure MASTER POWER switch is in down (OFF) position when you repair electrical circuits or parts.

WARNING

Axle assembly and wheels are heavy. They can fall and hurt you when springs come out of spring shackles. Do not get under wheels and axle unless they are properly supported.

WARNING

Launcher can hurt you when it oscillates or if it throws tools or parts during oscillation. When engine is running, stay clear of launcher deck, and keep tools and parts off launcher deck.

WARNING

Current of 50 — 70 amp can cause severe burns or other injury. Make sure all connections are tight. Keep tools clear of armature during test. Do not wear jewelry or watch. Wear goggles.

WARNING

Capacitor can discharge and injure you. Discharge capacitor before working on circuit.

WARNING

You can be hurt or killed if practice mines strike you after they have been launched. Do not stand closer than 70 yd (68.5 m) behind mine dispenser that is dispensing practice mines.

INSERT LATEST CHANGED PAGES.
DESTROY SUPERSEDED PAGES.

LIST OF EFFECTIVE PAGES

NOTE

The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands.

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 276
CONSISTING OF THE FOLLOWING:

PAGE NO.	*CHANGE NO.
Cover	0
a thru d	0
A	0
B blank	0
i and ii	0
20-1	0
20-2 blank	0
20-3 thru 20-33	0
20-34 blank	0
20-35 thru 20-81	0
20-82 blank	0
20-83 thru 20-105	0
20-106 blank	0
20-107 thru 20-111	0
20-112 blank	0
20-113 thru 20-127	0
20-128 blank	0
20-129 thru 20-149	0
20-150 blank	0
20-151 thru 20-159	0
20-160 blank	0
20-161 thru 20-171	0
20-172 blank	0
A-1 thru A-2	0
B-1	0
B-2 blank	0
B-3 and B-4	0
C-1 thru C-67	0
C-68 blank	0
Glossary 1 thru Glossary 4	0
Index 1 thru Index 3	0
Index 4 blank	0
FO-1 thru FO-11	0
FO-12 (sheet 1 and sheet 2)	0

* Zero in this column indicates an original page.

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 1 September 1984

DIRECT SUPPORT/GENERAL SUPPORT MAINTENANCE MANUAL

M128 GROUND VEHICLE MINE DISPENSER

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander; U.S. Army Armament, Munitions and Chemical Command; ATTN: DRSMC-MAS (R); Rock Island, IL 61299. A reply will be furnished to you.

VOLUME 7

		Page
	WARNINGS AND FIRST AID DATA	a
	LIST OF EFFECTIVE PAGES	A
CHAPTER 20	ELECTRICAL WIRING AND CONDUIT INSTALLATION (GENERAL SUPPORT)	20-1
Section I	Repair Parts, Special Tools, TMDE, and Support Equipment	20-1
Section II	Maintenance Procedures	20-3
APPENDIX A	REFERENCES	A-1
APPENDIX B	EXPENDABLE SUPPLIES AND MATERIALS LIST	B-1
Section I	Introduction	B-1
Section II	Expendable Supplies and Materials List	B-3
APPENDIX C	ILLUSTRATED LIST OF MANUFACTURED ITEMS	C-1
GLOSSARY		GLOSSARY 1
Section I	Abbreviations	Glossary 1
Section II	Definition of Unusual Terms	Glossary 3
	INDEX	INDEX 1
	Hydraulic System Schematic: Engine On, No Equipment Operating	FO-1

GO TO NEXT PAGE

TABLE OF CONTENTS — Continued

Hydraulic System Schematic: Launcher Wheel Rotating, and Launcher Not Oscillating FO-2

Hydraulic System Schematic: Launcher Wheel Rotating, and Launcher Oscillating to Left FO-3

Hydraulic System Schematic: Launcher Wheel Rotating, and Launcher Oscillating to Right FO-4

Hydraulic System Schematic: Right Magazine in Load Mode FO-5

Hydraulic System Schematic: Right Magazine in Unload Mode FO-6

Hydraulic System Schematic: Launcher Wheel Rotating, Oscillator in Manual Bypass Mode FO-7

Hydraulic System Schematic: Right Magazine in Normal Bypass Mode FO-8

Hydraulic System Schematic: Jammed Mine FO-9

Operator Control Panel Schematic FO-10

B.I.T.E. ALARM Panel Assembly Wiring Diagram FO-11

Electrical Enclosure Assembly Power Panel and Terminal Board 1TB Wiring Diagram FO-12

CHAPTER 20

ELECTRICAL WIRING AND CONDUIT INSTALLATION (GENERAL SUPPORT)

Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

20-1 COMMON TOOLS AND EQUIPMENT

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

20-2 SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

No special tools are authorized for the M128 Ground Vehicle Mine Dispenser.

20-3 REPAIR PARTS

Repair parts are listed and illustrated in the repair parts and special tools list TM 9-1095-205-34P, covering direct support and general support maintenance for this equipment.

Section II. MAINTENANCE PROCEDURES

20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION

DESCRIPTION

This task covers:

A. CONNECTOR P15 REMOVAL (p 20-4)
B. CONNECTOR P15 INSTALLATION (p 20-5)
C. LEFT MAGAZINE INTERNAL WIRING HARNESS REMOVAL (p 20-9)
D. LEFT MAGAZINE INTERNAL WIRING HARNESS INSTALLATION (p 20-10)
E. CABLE ASSEMBLY P13 REMOVAL (p 20-12)
F. CABLE ASSEMBLY P13 INSTALLATION (p 20-14)
G. CABLE ASSEMBLY P27 REMOVAL (p 20-16)
H. CABLE ASSEMBLY P27 INSTALLATION (p 20-17)
I. CABLE ASSEMBLY P39 REMOVAL (p 20-19)
J. CABLE ASSEMBLY P39 INSTALLATION (p 20-21)
K. CABLE ASSEMBLY J47 REMOVAL (p 20-23)
L. CABLE ASSEMBLY J47 INSTALLATION (p 20-25)
M. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB REMOVAL (p 20-27)
N. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB INSTALLATION (p 20-29)
O. LEFT MAGAZINE CONTROL WIRING BUNDLE REMOVAL (p 20-32)
P. LEFT MAGAZINE CONTROL WIRING BUNDLE INSTALLATION (p 20-32)

INITIAL SETUP

Tools and Special Tools:

General mechanic's tool kit
5180-00-177-7033:
- No. 2 cross tip screwdriver
- 1/4 inch flat tip screwdriver
- 3/8 inch flat tip screwdriver
- 3/8 inch box end wrench
- Long nose pliers
- Pocket knife
- Putty knife
- 10 inch adjustable wrench

Slip joint pliers 5120-00-278-0351
Heat gun 4900-00-561-1002
Wire marker
Measuring tape 5720-00-287-3335

Materials/Parts:

Epoxy, Item 7, Appendix B
Solvent, Item 28, Appendix B
Rags, Item 22, Appendix B
Gasket 5310-01-143-4915
Gasket (2) 5330-00-241-0228

Materials/Parts — Continued:

Thermofit boot (19200) 9317974-6
Lock washer (4) 5310-00-579-0079
Lock washer 5310-00-579-5752
Self-locking nut 5310-00-877-5797
Heat shrink tubing 5970-00-914-3118
Connector 5935-01-042-3770
Adhesive sealant, Item 2, Appendix B
Duct sealing compound, Item 6, Appendix B

Personnel Required:

Electrical repairer

References:

TM 9-1095-205-10
TM 9-1095-205-20
TM 55-1500-323-25
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES Page 16-3
LEFT INFEED CONVEYOR AND LEFT END COVER ASSEMBLIES, Page 6-21
TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES, Page 3-3

GO TO NEXT PAGE

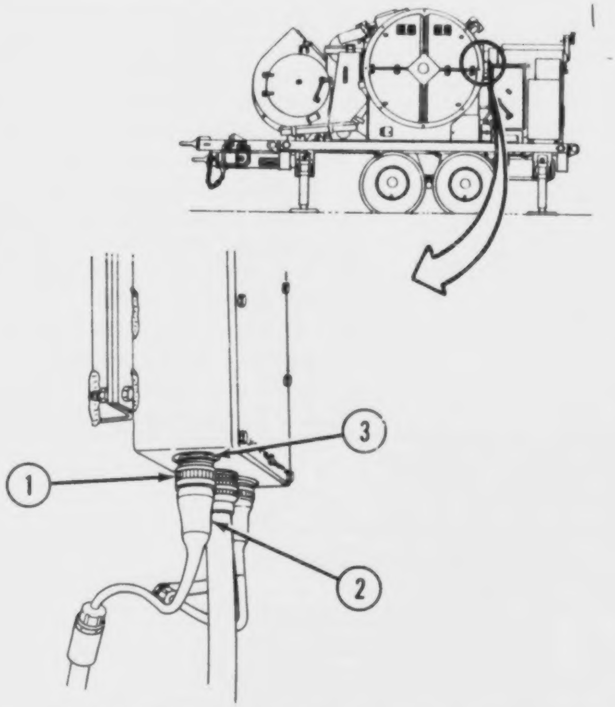
20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION — Continued

OVERVIEW

This task describes how to remove and install the left magazine control wiring as separate cable assemblies, or as a wire bundle.

The parts listed under Materials/Parts are for use with the instructions referenced in task Cable, Wire Bundle, and Lead Assemblies, Page 16-3.

A. CONNECTOR P15 REMOVAL



NOTE

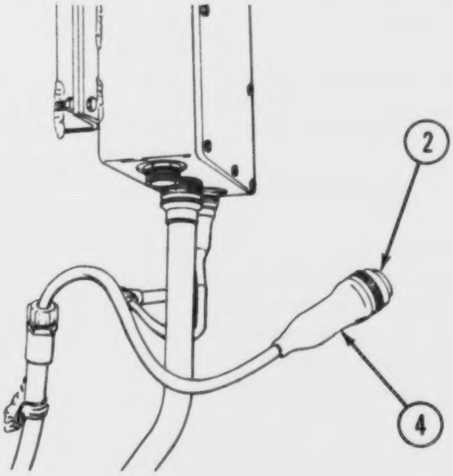
PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

1. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P15 (2) FROM RECEPTACLE J15 (3).

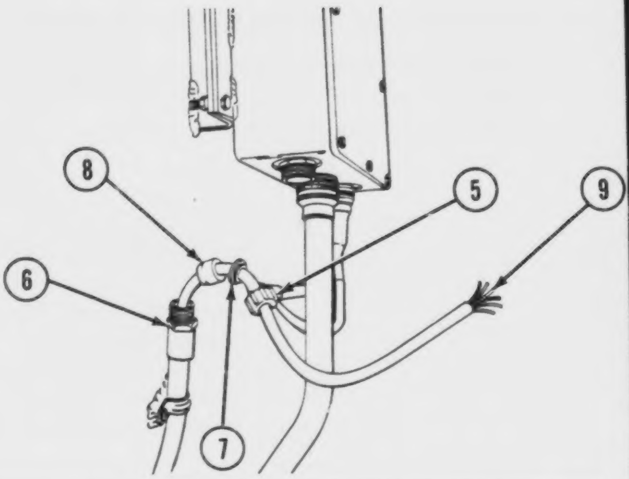
NOTE

Tag and mark each lead after removal.



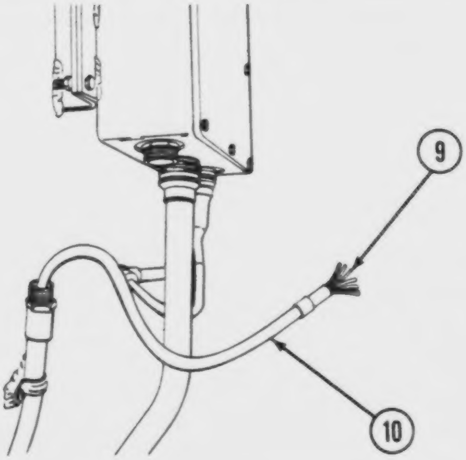
2. REMOVE CONNECTOR P15 FROM LEFT MAGAZINE CONTROL WIRING BUNDLE. (SEE TM 55-1500-323-25.)
   - Remove thermofit boot (4) from Connector P15 (2). Use pocket knife. Discard thermofit boot.
   - Unsolder leads at Connector P15 (2). (See TM 55-1500-323-25.)
   - Tag and mark leads.

3. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (5) from connector body (6). Use 10 inch adjustable wrench.
   - Remove hub (5), spacer (7), and bushing (8) from cable (9). Discard hub, spacer and bushing.



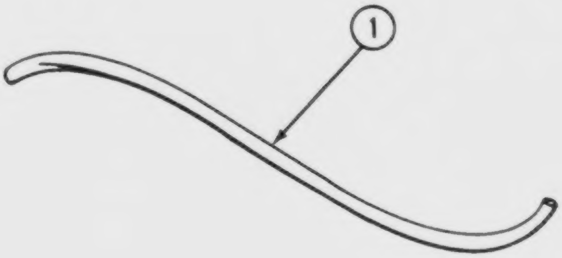
---

4. REMOVE HEAT SHRINK TUBE FROM CABLE.
   - Remove heat shrink tube (10) from cable (9). Use pocket knife and long nose pliers. Discard heat shrink tube.



B CONNECTOR P15 INSTALLATION

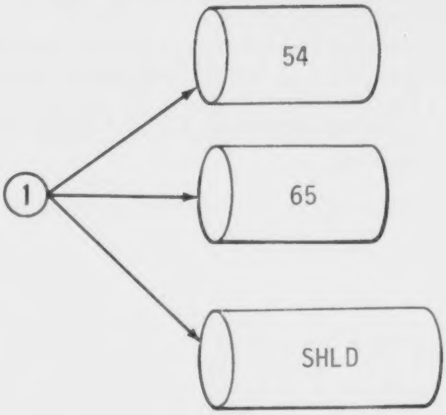
1. CUT HEAT SHRINK TUBE.
   - Cut heat shrink tube (1) 14 in. (35.6 cm) long. Use pocket knife and measuring tape.



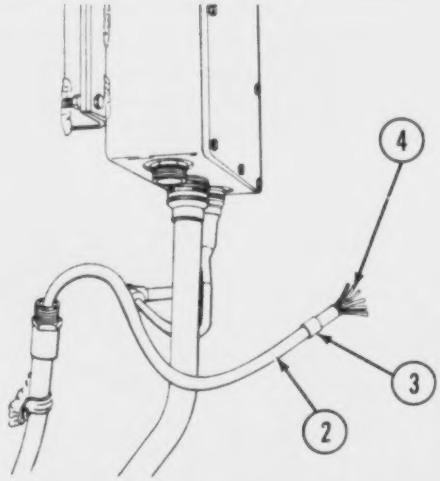
GO TO NEXT PAGE

B. CONNECTOR P15 INSTALLATION — Continued

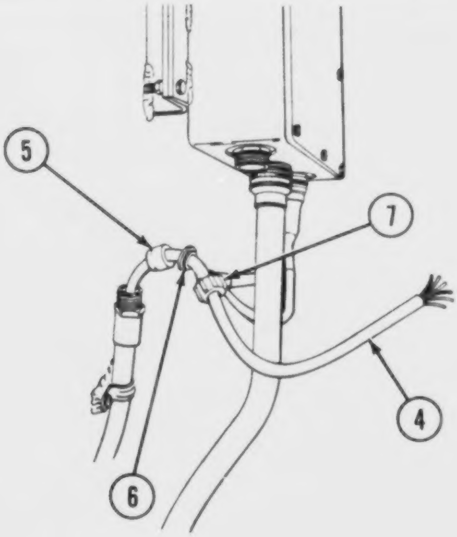
2. PREPARE THERMOFIT MARKING SLEEVE.
   - Mark connector number on thermofit marking sleeves (1). Use wire marker.



3. PLACE HEAT SHRINK TUBE (2) AND THERMOFIT MARKING SLEEVES (3) ON CABLE (4).



4. INSTALL BUSHING (5), SPACER (6), AND HUB (7) ON CABLE (4).



5. PERFORM CABLE ASSEMBLY P15 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND THE FOLLOWING CONNECTOR P15 WIRE DESTINATION LIST.)

CONNECTOR P15 WIRE DESTINATION LIST

P15 Contact	Wire No.	PB Switch/Connector Destination Contact
K	95	Switch 3PB Lead 95
L	2	Switch 3PB Lead 2
M	. . .	. . .
b	. . .	. . .
a	. . .	. . .
j	. . .	. . .
k	. . .	. . .
c	. . .	. . .
N	. . .	. . .
P	. . .	. . .
R	. . .	. . .
d	. . .	. . .
S	. . .	. . .
T	. . .	. . .
f	2	Connector P27 D
g	54	Connector P27 B
Y	65	Connector P27 F
X	Shield	. . .
A	2	Connector J47 B
B	54	Connector J47 A
C	61	Connector J47 C
V	Shield	Connector J47 N
D	2	Connector P39 C
E	54	Connector P39 A
F	55	Connector P39 B
W		. . .
G	2	Connector J47 H
H	54	Connector J47 G
J	60	Connector J47 J
z	Shield	Connector J47 J
U	2	Connector P13 A
e	17	Connector P13 B
i	68	Connector P13 C
h	Shield	. . .

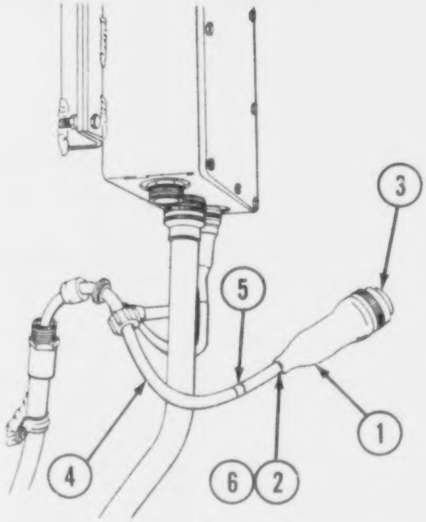
GO TO NEXT PAGE

B. CONNECTOR P15 INSTALLATION — Continued

NOTE

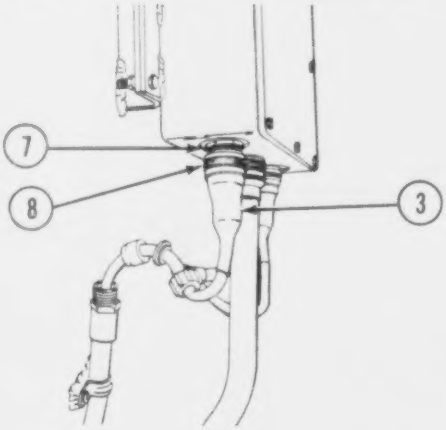
Remove tag from each lead after installation.

6. INSTALL CONNECTOR P15 IN LEFT MAGAZINE CONTROL WIRING BUNDLE. (SEE TM 55-1500-323-25.)
   - Position new thermofit boot (1) on control wiring bundle (2).
   - Solder leads at Connector P15 (3). (See TM 55-1500-323-25.)
   - Remove tags from leads.
   - Install heat shrink tube (4) and thermofit marking sleeve (5) on cable (6). Use heat gun.
   - Apply epoxy sealant to thermofit boot (1).
   - Install thermofit boot (1) on Connector P15 (3). Use heat gun.



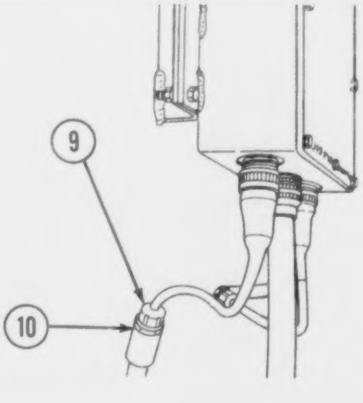
---

7. CONNECT CONNECTOR P15 (3) TO RECEPTACLE J15 (7), AND TURN CONNECTOR SLEEVE (8).



---

8. INSTALL CONNECTOR HUB ON CONNECTOR BODY.
   - Install connector hub (9) on connector body (10). Use 10 inch adjustable wrench.



NOTE

FOLLOW-ON MAINTENANCE:
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

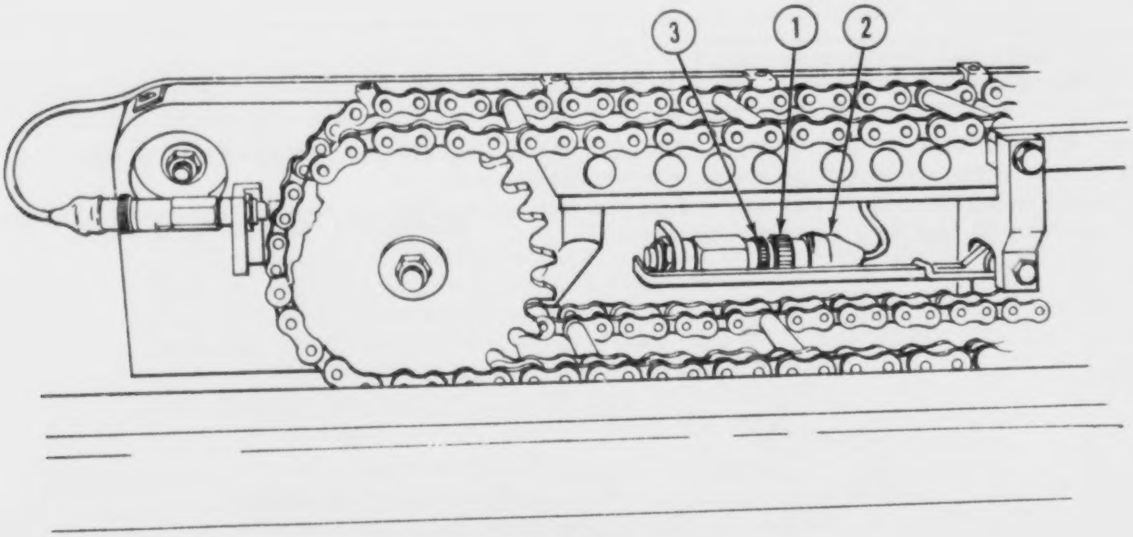
C. LEFT MAGAZINE INTERNAL WIRING HARNESS REMOVAL

NOTE

PRELIMINARY PROCEDURES:
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Left Mud Guard Lid And Catch. (See TM 9-1095-205-20.)
Remove Left Side Guard And Hinged Side Guard. (See TM 9-1095-205-20.)
Remove Left Infeed Chute Assembly. (See TM 9-1095-205-20.)
Open Left Magazine Access Doors. (See TM 9-1095-205-10.)
Unlock Left Magazine Drive Sprocket Locking Cam. (See TM 9-1095-205-10.)

1. REMOVE LEFT MAGAZINE INFEED CONVEYOR ASSEMBLY FROM LEFT MAGAZINE ASSEMBLY. (SEE LEFT INFEED CONVEYOR AND LEFT END COVER ASSEMBLIES, PAGE 6-21.)

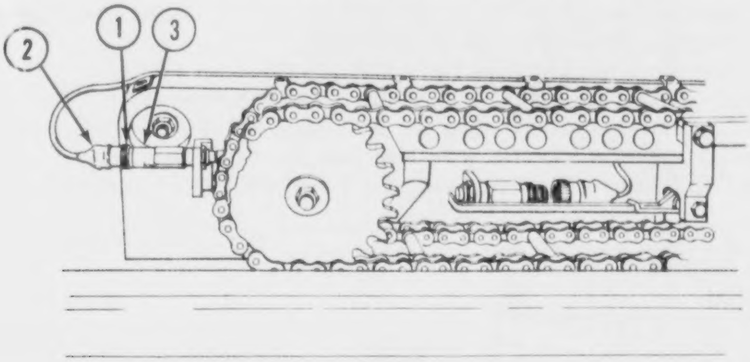
2. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P21 (2) FROM RECEPTACLE J21 (3).



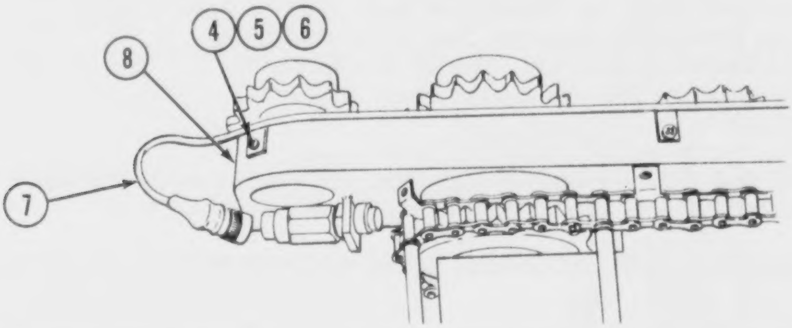
GO TO NEXT PAGE

C. LEFT MAGAZINE INTERNAL WIRING HARNESS REMOVAL — Continued

3. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P25 (2) FROM RECEPTACLE J25 (3).

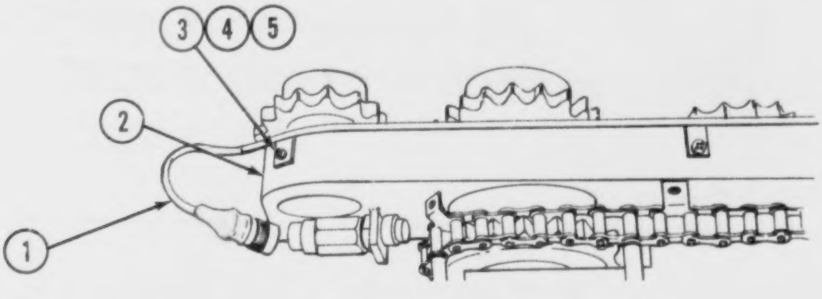


4. REMOVE INTERNAL WIRING HARNESS FROM LEFT MAGAZINE INFEED CONVEYOR ASSEMBLY.
   - Remove four screws (4), lock washers (5), washers (6), and wiring harness (7) from infeed conveyor assembly (8). Use No. 2 cross tip screwdriver. Discard lock washers.

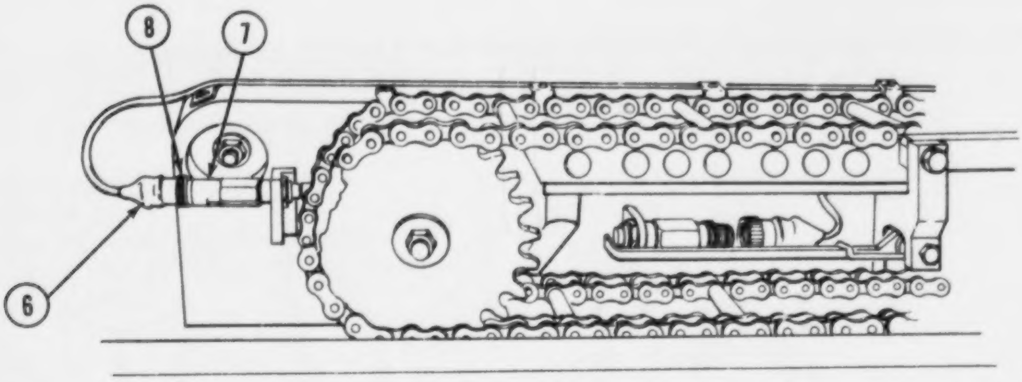


D. LEFT MAGAZINE INTERNAL WIRING HARNESS INSTALLATION

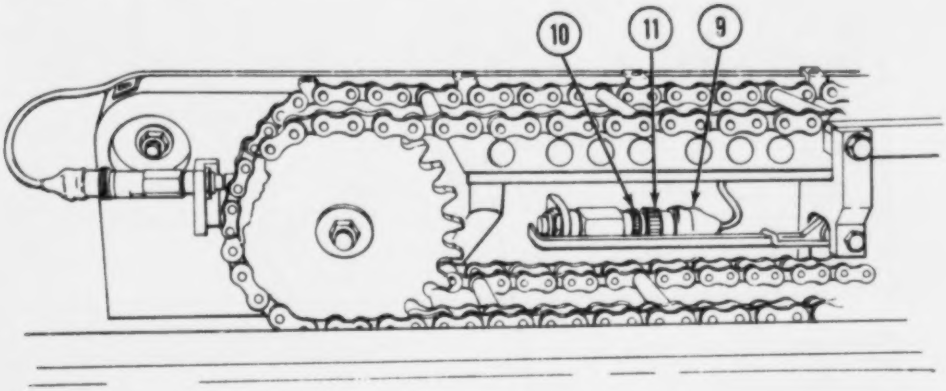
1. INSTALL INTERNAL WIRING HARNESS ON LEFT MAGAZINE INFEED CONVEYOR ASSEMBLY.
   - Position wiring harness (1) on infeed conveyor assembly (2).
   - Install wiring harness (1), four washers (3), new lock washers (4), and screws (5) on infeed conveyor assembly (2). Use No. 2 cross tip screwdriver.



2. CONNECT CONNECTOR P25 (6) TO RECEPTACLE J25 (7), AND TURN CONNECTOR SLEEVE (8).



3. CONNECT CONNECTOR P21 (9) TO RECEPTACLE J21 (10), AND TURN CONNECTOR SLEEVE (11).



4. INSTALL LEFT MAGAZINE INFEED CONVEYOR ASSEMBLY IN LEFT MAGAZINE ASSEMBLY. (SEE LEFT INFEED CONVEYOR AND LEFT END COVER ASSEMBLIES, PAGE 6-21.)

NOTE

FOLLOW-ON MAINTENANCE:

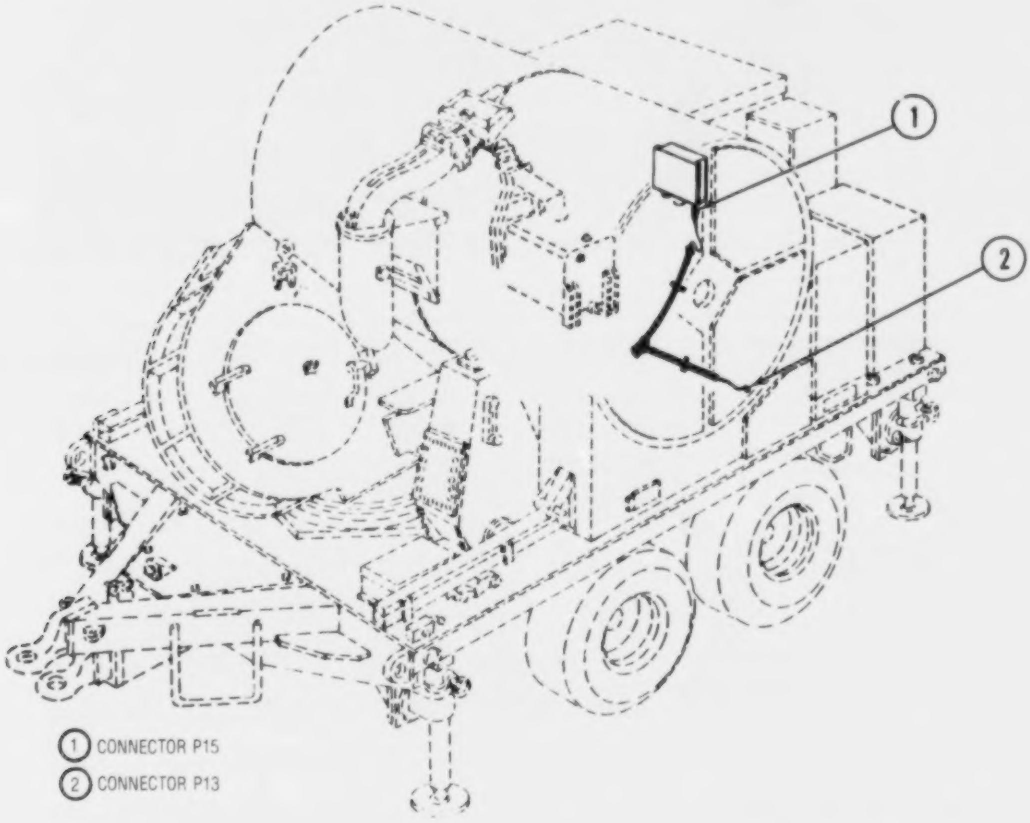
Lock Left Magazine Drive Sprocket Locking Cam. (See TM 9-1095-205-10.)
Close Left Magazine Access Doors. (See TM 9-1095-205-10.)
Install Left Infeed Chute Assembly. (See TM 9-1095-205-20.)
Install Left Side Guard And Hinged Side Guard. (See TM 9-1095-205-20.)
Install Left Mud Guard Lid And Catch. (See TM 9-1095-205-20.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION — Continued

E. CABLE ASSEMBLY P13 REMOVAL

Use the following Cable Assembly P13 Locator to find the P13 and P15 connectors.



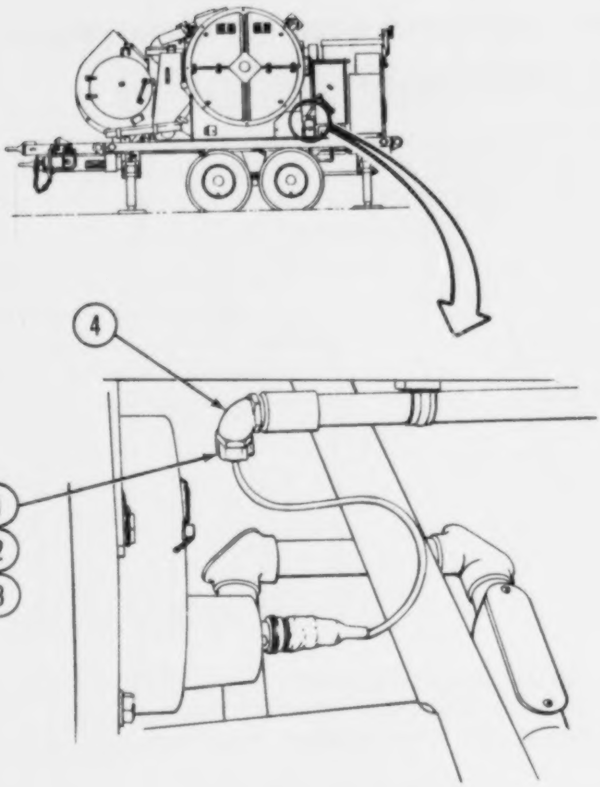
Cable Assembly P13 Locator

NOTE

PRELIMINARY PROCEDURES:

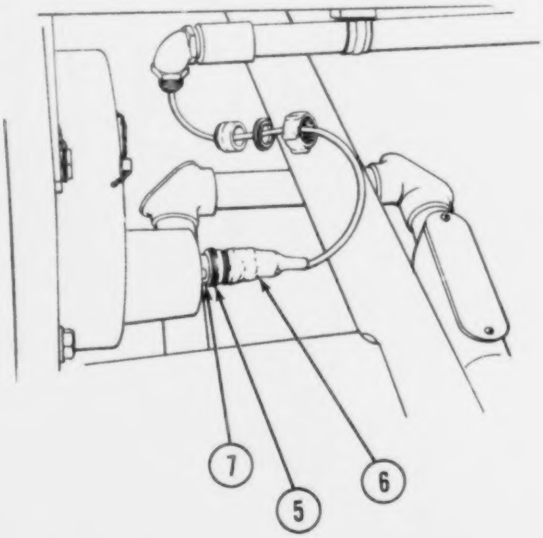
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)
2. REMOVE CONDUIT FITTING COVER FROM CONDUIT TEE. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)
3. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (1), spacer (2), and bushing (3) from 90° elbow (4). Use 10 inch adjustable wrench.



---

4. TURN CONNECTOR SLEEVE (5), AND DISCONNECT CONNECTOR P13 (6) FROM RECEPTACLE J13 (7).
5. REMOVE CABLE ASSEMBLY P13 FROM CONDUIT BETWEEN LEFT MAGAZINE PULSE GENERATOR AND JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



GO TO NEXT PAGE

20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION — Continued

F. CABLE ASSEMBLY P13 INSTALLATION

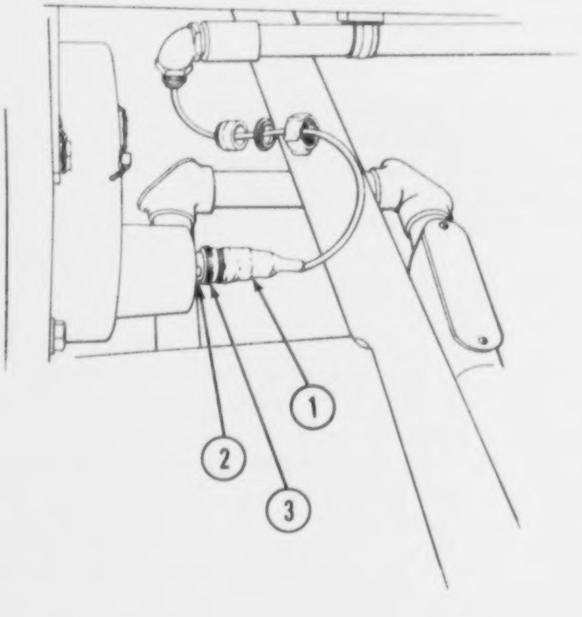
1. PERFORM CABLE ASSEMBLY P13 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY P13 WIRE DESTINATION LIST.)

CABLE ASSEMBLY P13 WIRE DESTINATION LIST

P13 Contact	Wire No.	P15 Destination Contact
A	2	U
B	17	e
C	68	i
. . .	Shield	h
D	. . .	. . .
E	. . .	. . .
F	. . .	. . .

2. INSTALL CABLE ASSEMBLY P13 IN LEFT CONDUIT BETWEEN LEFT MAGAZINE PULSE GENERATOR AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P13 LOCATOR, PAGE 20-12.)

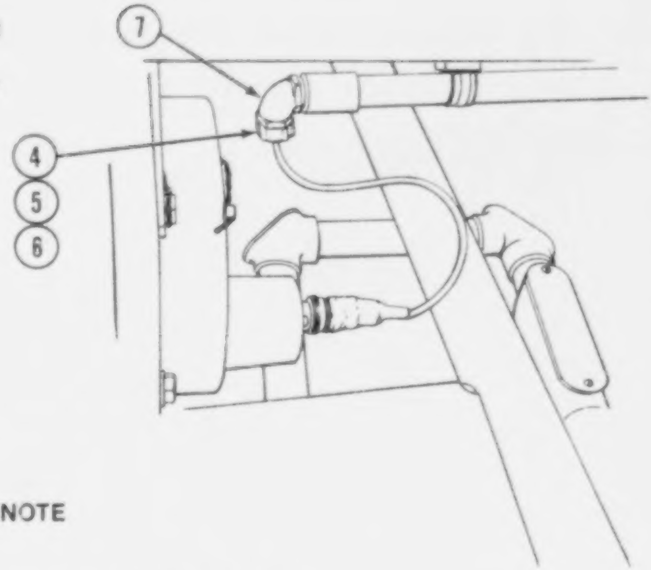
3. CONNECT CONNECTOR P13 (1) TO RECEPTACLE J13 (2), AND TURN CONNECTOR SLEEVE (3).



4. INSTALL CONNECTOR HUB ON CONNECTOR BODY.
   - Install bushing (4), spacer (5), and connector hub (6) on 90° elbow (7). Use 10 inch adjustable wrench.

5. INSTALL CONDUIT FITTING COVER ON CONDUIT TEE. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

6. INSTALL NEW CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)



NOTE

FOLLOW-ON MAINTENANCE:

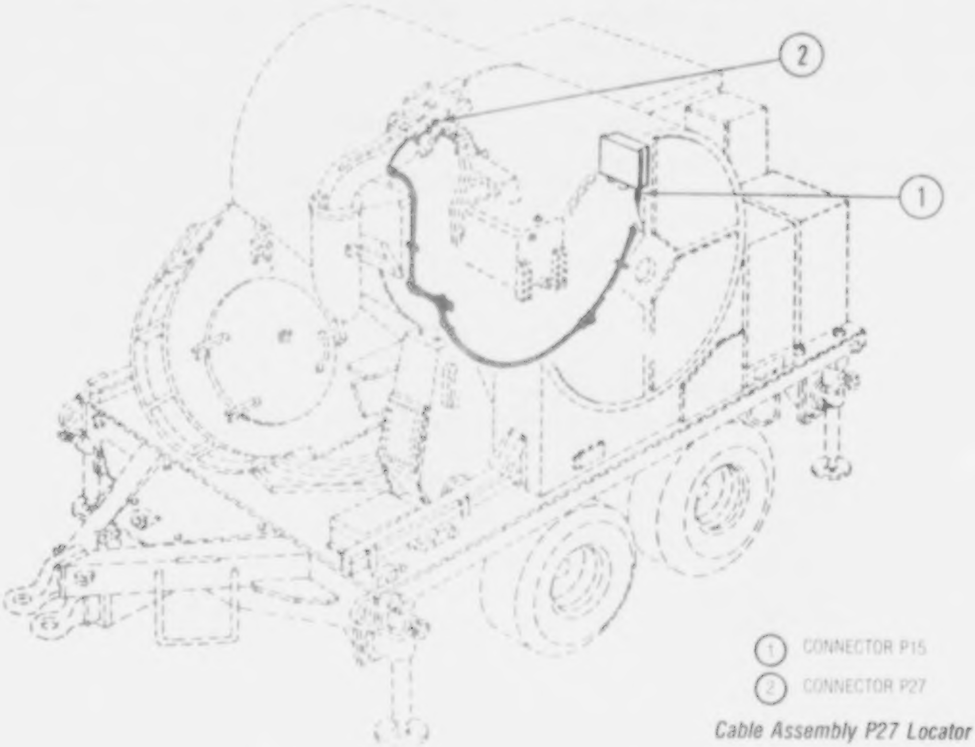
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION — Continued

G. CABLE ASSEMBLY P27 REMOVAL

Use the following Cable Assembly P27 Locator to find the P27 and P15 connectors.



① CONNECTOR P15
② CONNECTOR P27

Cable Assembly P27 Locator

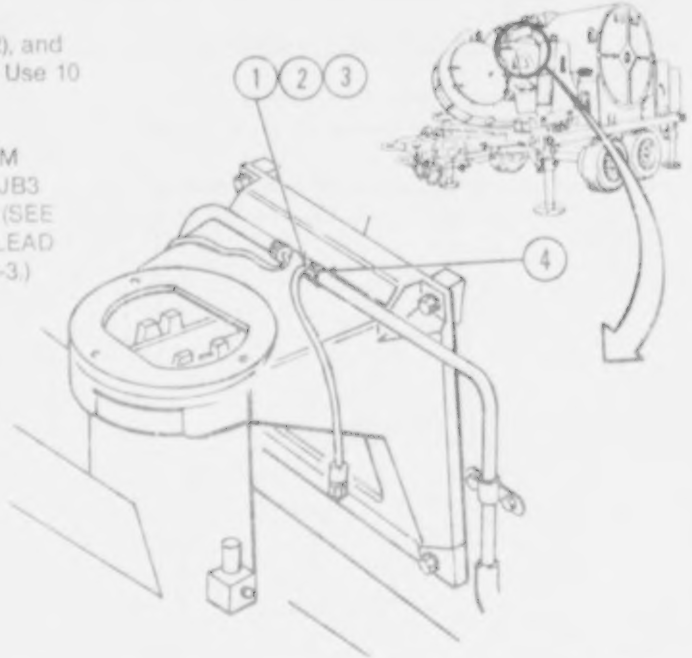
NOTE

PRELIMINARY PROCEDURES:
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)
2. REMOVE TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES FROM LAUNCHER ASSEMBLY. (SEE TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES, PAGE 3-3.)
3. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEE, CONDUIT CROSS, AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

4. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (1), spacer (2), and bushing (3) from connector body (4). Use 10 inch adjustable wrench.

5. REMOVE CABLE ASSEMBLY P27 FROM CONDUIT BETWEEN JUNCTION BOX JB3 AND TWIN DROP CHUTE ASSEMBLY. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY FROM CONDUIT, PAGE 16-3.)



H. CABLE ASSEMBLY P27 INSTALLATION

1. PERFORM CABLE ASSEMBLY P27 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY P27 WIRE DESTINATION LIST.)

CABLE ASSEMBLY P27 WIRE DESTINATION LIST

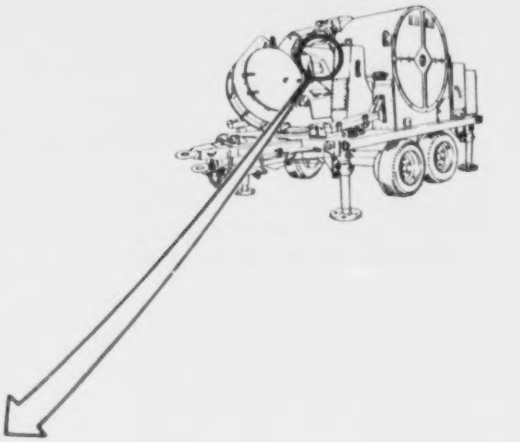
P27 Contact	Wire No.	P15 Destination Contact
A	...	d
C	...	S
E	...	T
D	2	f
B	54	g
F	65	y
...	Shield	X

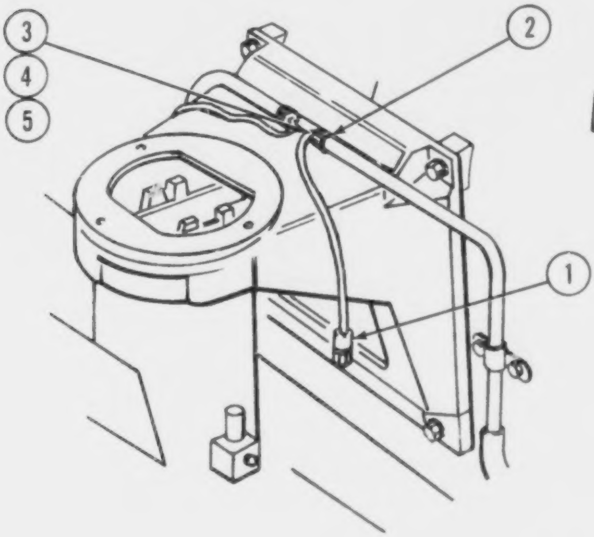
2. INSTALL CABLE ASSEMBLY P27 IN CONDUIT ASSEMBLY BETWEEN TWIN DROP CHUTE ASSEMBLY AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P27 LOCATOR, PAGE 20-16.)

GO TO NEXT PAGE

H. CABLE ASSEMBLY P27 INSTALLATION — Continued

3. INSTALL CONNECTOR HUB ON CONNECTOR BODY.
    - Allow about 40 in. (102.6 cm) from end of Connector P27 (1) to connector body (2). Use measuring tape.
    - Install bushing (3), spacer (4), and connector hub (5) on connector body (2). Use slip joint pliers.





4. INSTALL TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES ON LAUNCHER ASSEMBLY. (SEE TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES, PAGE 3-3.)

5. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEE, CONDUIT CROSS, AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

6. INSTALL CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)

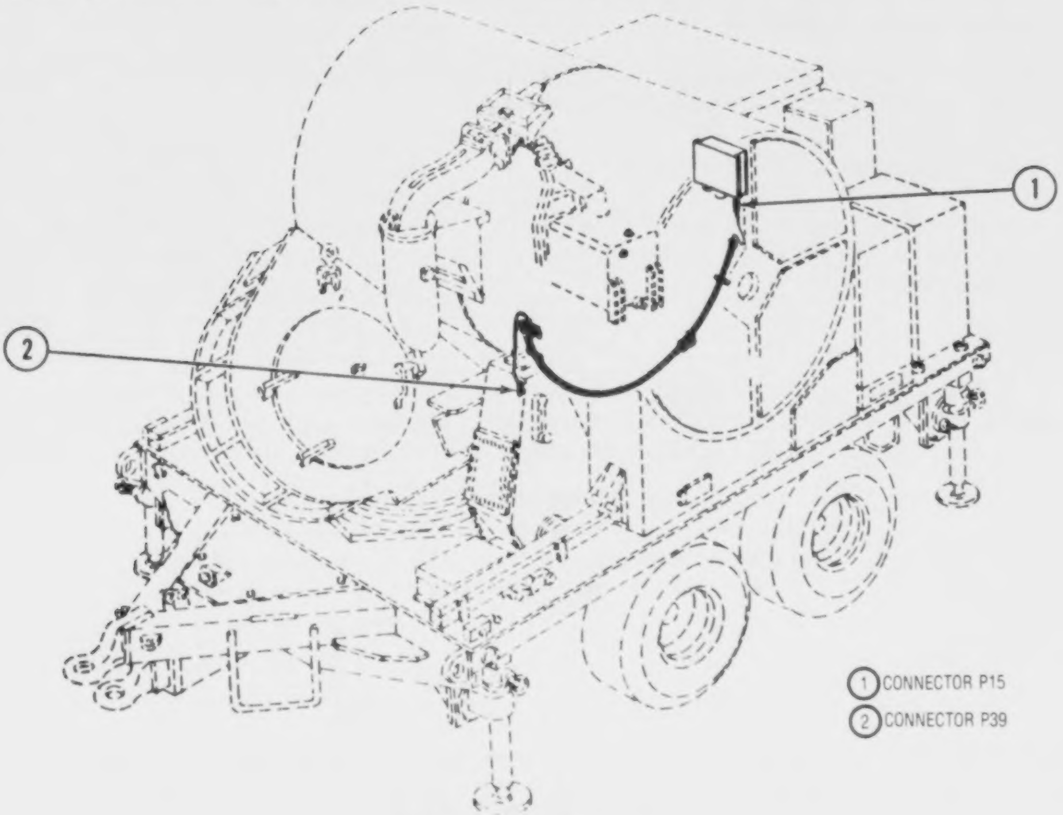
NOTE

FOLLOW-ON MAINTENANCE:

Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

I. CABLE ASSEMBLY P39 REMOVAL

Use the following Cable Assembly P39 Locator to find the P39 and P15 connectors.



Cable Assembly P39 Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

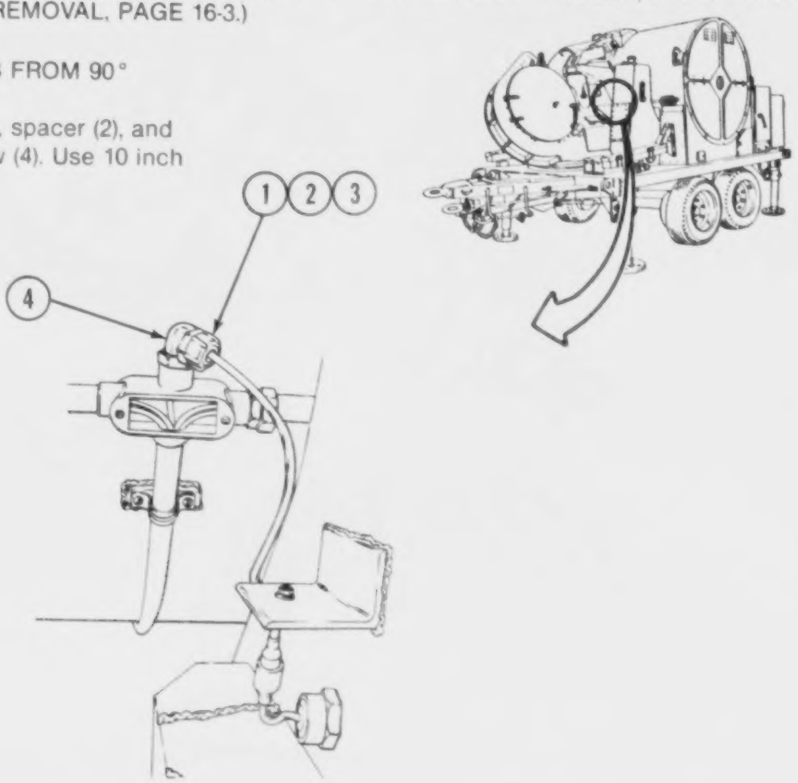
GO TO NEXT PAGE

I. CABLE ASSEMBLY P39 REMOVAL — Continued

1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)

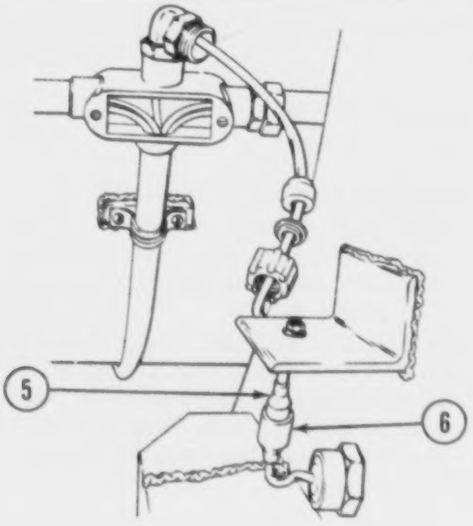
2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

3. REMOVE CONNECTOR HUB FROM 90° ELBOW.
   - Remove connector hub (1), spacer (2), and bushing (3) from 90° elbow (4). Use 10 inch adjustable wrench.



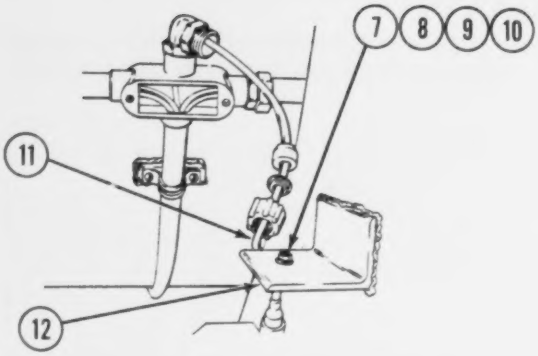
---

4. HOLD PIN CONNECTOR (5), AND DISCONNECT CONNECTOR P39 (6) FROM PIN CONNECTOR.



5. REMOVE CABLE ASSEMBLY P39 AND CLAMP FROM HYDRAULIC RESERVOIR ANGLE.
   - Remove self-locking nut (7), lock washer (8), screw (9), and clamp (10) with assembly cable (11) from angle (12). Use No. 2 cross tip screwdriver and 3/8 inch box end wrench.

6. REMOVE CABLE ASSEMBLY P39 FROM CONDUIT BETWEEN JUNCTION BOX JB3 AND HYDRAULIC RESERVOIR. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



J. CABLE ASSEMBLY P39 INSTALLATION

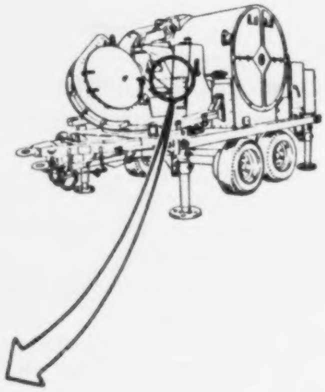
1. PERFORM CABLE ASSEMBLY P39 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY P39 WIRE DESTINATION LIST.)

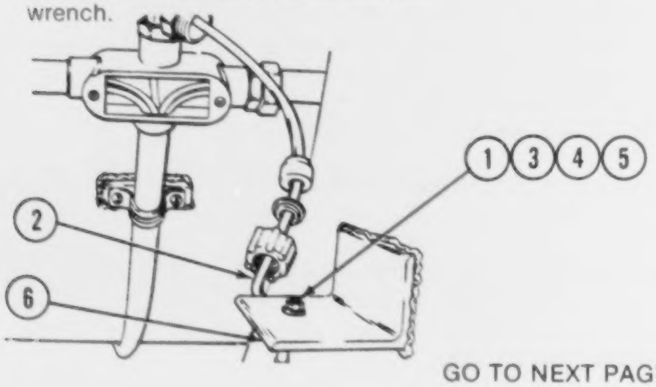
CABLE ASSEMBLY P39 WIRE DESTINATION LIST

P39 Contact	Wire No.	P15 Destination Contact
C	2	D
A	54	E
B	55	F

2. INSTALL CABLE ASSEMBLY P39 IN CONDUIT ASSEMBLY BETWEEN HYDRAULIC RESERVOIR AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P39 LOCATOR, PAGE 20-19.)

3. INSTALL CABLE ASSEMBLY P39 AND CLAMP ON HYDRAULIC RESERVOIR ANGLE.
   - Place clamp (1) on cable assembly (2).
   - Install clamp (1) with cable assembly (2), screw (3), new lock washer (4), and new self-locking nut (5) on angle (6). Use No. 2 cross tip screwdriver and 3/8 inch box end wrench.

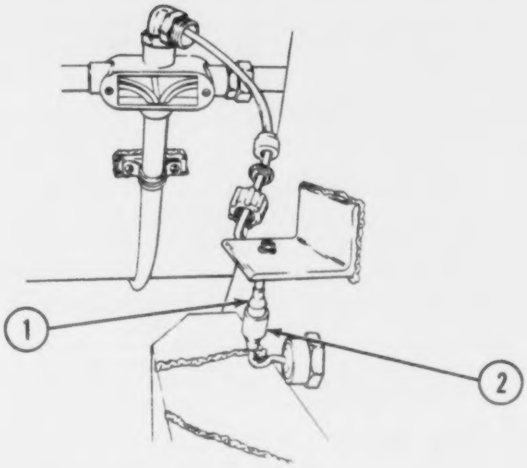




GO TO NEXT PAGE

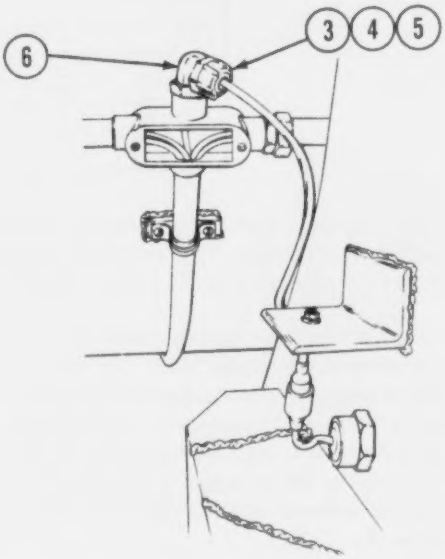
J. CABLE ASSEMBLY P39 INSTALLATION — Continued

4. HOLD PIN CONNECTOR (1), AND CONNECT CONNECTOR P39 (2) TO PIN CONNECTOR.



---

5. INSTALL CONNECTOR HUB ON 90° ELBOW.
   - Install bushing (3), spacer (4), and connector hub (5) on 90° elbow (6). Use 10 inch adjustable wrench.



6. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTINGS COVER INSTALLATION, PAGE 16-3.)

7. INSTALL CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)

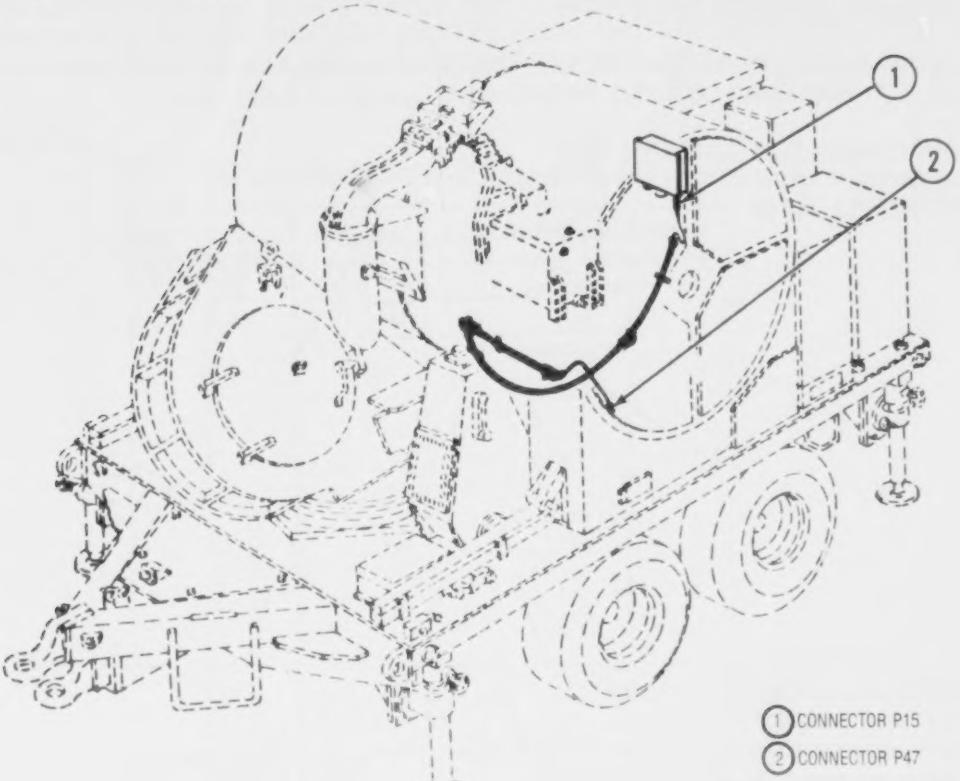
NOTE

FOLLOW-ON MAINTENANCE:

Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

K. CABLE ASSEMBLY J47 REMOVAL

Use the following Cable Assembly P47 Locator to find the J47 and P15 connectors.



Cable Assembly P47 Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Open Left Magazine Access Doors. (See TM 9-1095-205-10.)

1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

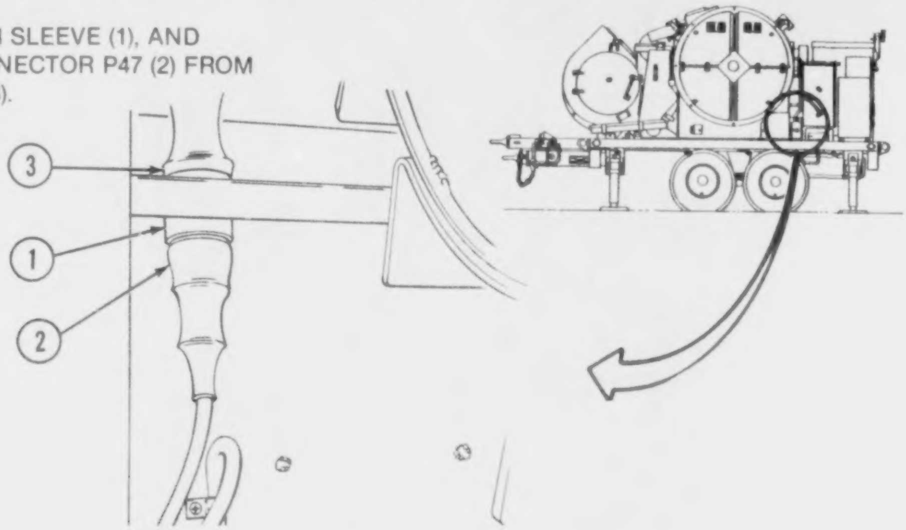
GO TO NEXT PAGE

K. CABLE ASSEMBLY J47 REMOVAL — Continued

3. REMOVE COVER FROM PUSHBUTTON CONTROL STATION. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-28.)

4. REMOVE PUSHBUTTON CONTROL STATION SWITCH FROM PUSHBUTTON CONTROL STATION. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-28.)

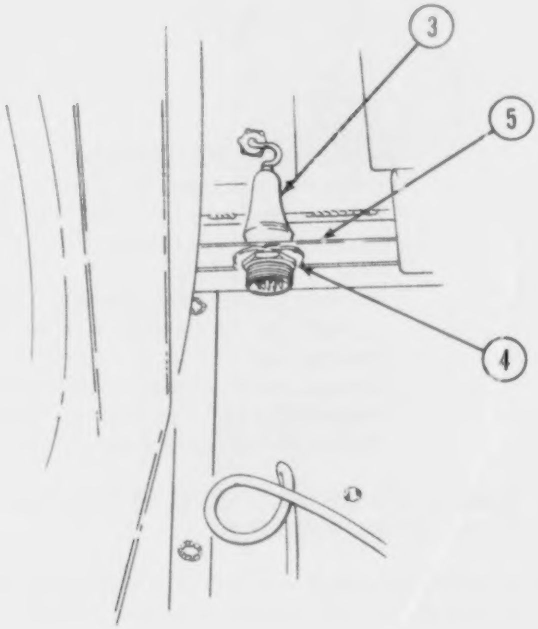
5. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P47 (2) FROM RECEPTACLE J47 (3).



---

6. REMOVE RECEPTACLE J47 FROM MOUNTING FLANGE.
   - Remove nut (4) and Receptacle J47 (3) from mounting flange (5). Use slip joint pliers.

7. REMOVE CABLE ASSEMBLY J47 FROM CONDUIT BETWEEN LEFT MAGAZINE AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



L. CABLE ASSEMBLY J47 INSTALLATION

1. PERFORM CABLE ASSEMBLY J47 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY J47 WIRE DESTINATION LIST.)

CABLE ASSEMBLY J47 WIRE DESTINATION LIST

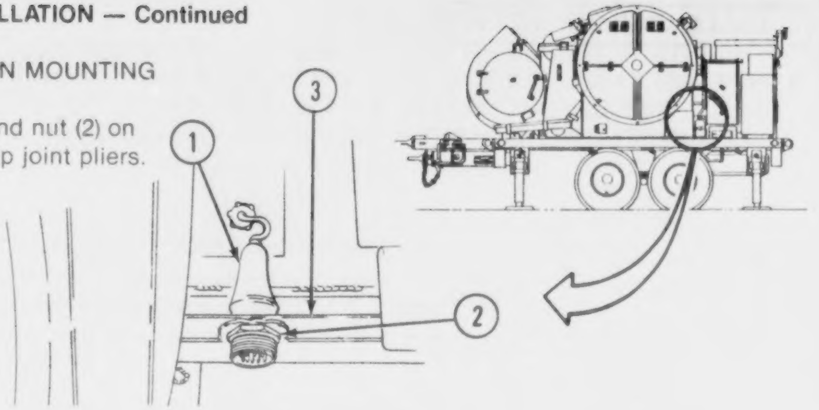
P47 Contact	Wire No.	P15 Destination Contact
B	2	A
A	54	B
C	61	C
N	Shield	V
E	...	...
D	...	...
F	...	...
P	...	...
H	2	G
G	54	H
J	60	J
R	Shield	X
K	...	...
L	...	...
M	...	...
S	...	...

2. INSTALL CABLE ASSEMBLY J47 IN CONDUIT BETWEEN LEFT MAGAZINE AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P47 LOCATOR, PAGE 20-23.)

GO TO NEXT PAGE

L. CABLE ASSEMBLY J47 INSTALLATION — Continued

3. INSTALL RECEPTACLE J47 ON MOUNTING FLANGE.
   - Install Receptacle J47 (1) and nut (2) on mounting flange (3). Use slip joint pliers.



---

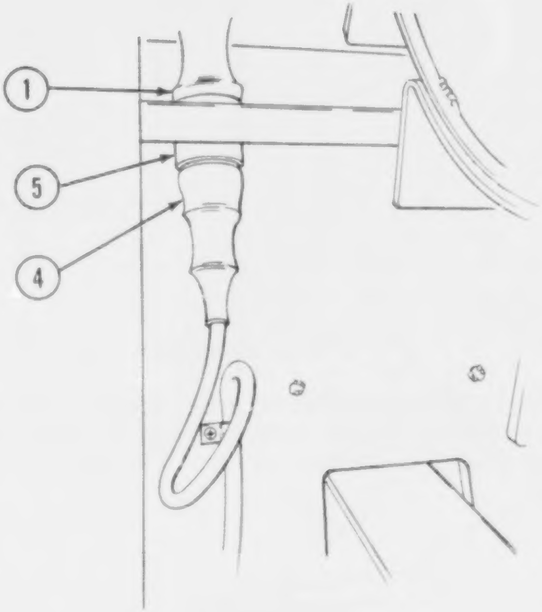
4. CONNECT CONNECTOR P47 (4) TO RECEPTACLE J47 (1), AND TURN CONNECTOR SLEEVE (5).

5. INSTALL PUSHBUTTON CONTROL STATION SWITCH IN PUSHBUTTON CONTROL STATION. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-30.)

6. INSTALL COVER ON PUSHBUTTON CONTROL STATION. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-31.)

7. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

8. INSTALL CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)



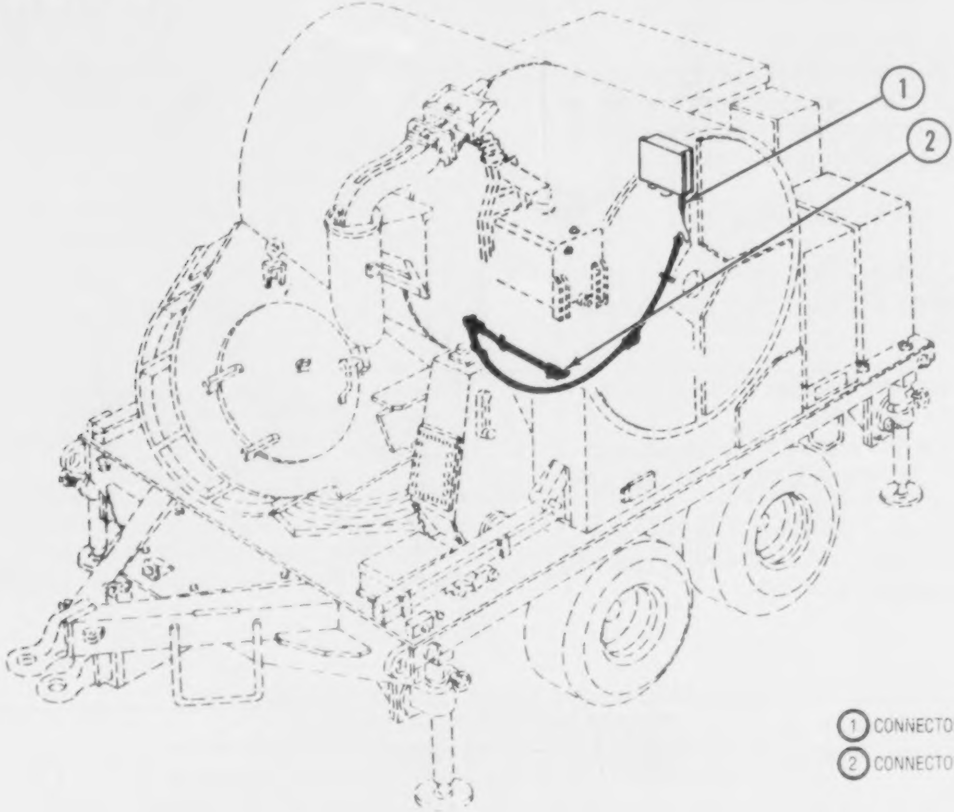
NOTE

FOLLOW-ON MAINTENANCE:

Close Left Magazine Access Doors. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery box Cover. (See TM 9-1095-205-10.)

M. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB REMOVAL

Use the following Pushbutton Control Station Cable Assembly and Switch 3PB Locator to find the P15 and 3PB connectors.



① CONNECTOR P15
② CONNECTOR 3PB

Pushbutton Control Station Cable Assembly and Switch 3PB Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

GO TO NEXT PAGE

M. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB REMOVAL — Continued

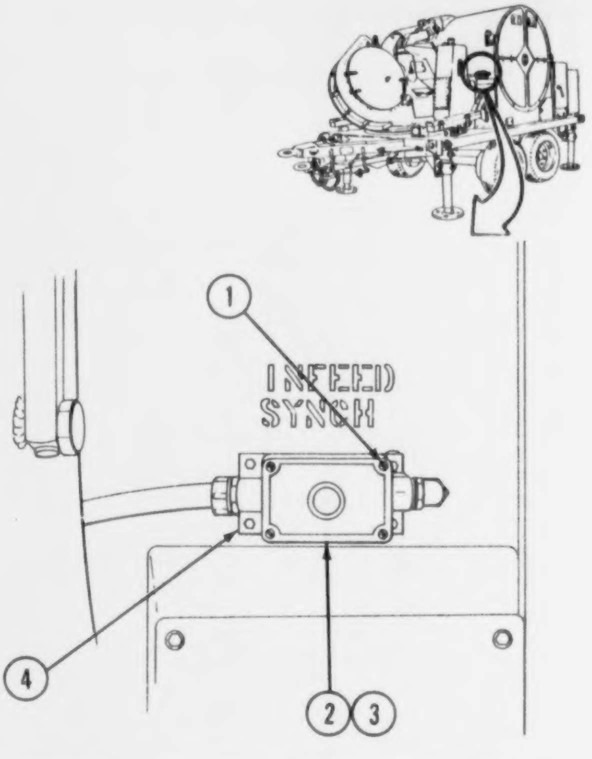
1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

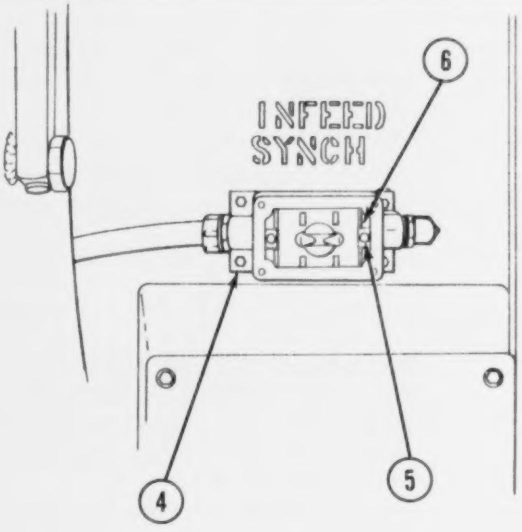
WARNING

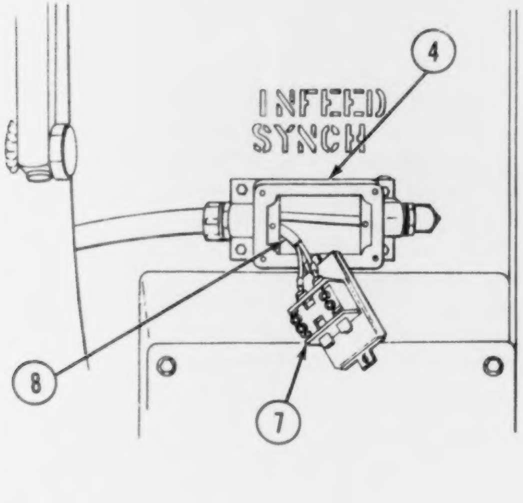
Cleaning solvent can explode and can burn. Read warning on front page of this manual.

3. REMOVE COVER FROM PUSHBUTTON CONTROL STATION.
   - Remove four screws (1), cover (2), and gasket (3) from pushbutton control station (4). Discard gasket.
   - Clean mating surfaces of pushbutton control station (4) and cover (2). Use putty knife, solvent, and rags.



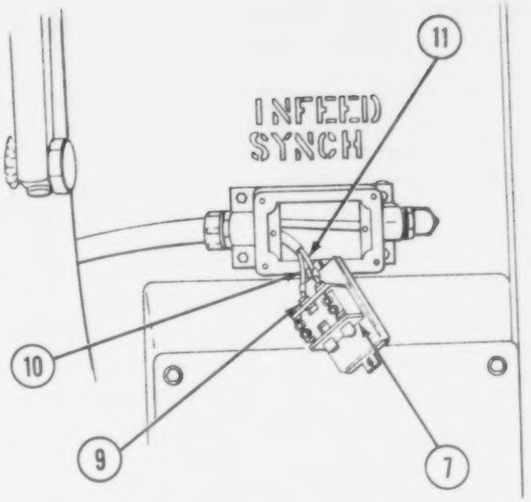
4. REMOVE PUSHBUTTON CONTROL STATION SWITCH FROM PUSHBUTTON CONTROL STATION.
   - Remove two screws (5), switch plate (6), and switch (7) with cable assembly (8) from pushbutton control station (4). Use 1/4 inch flat tip screwdriver.





5. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY FROM PUSHBUTTON CONTROL STATION SWITCH.
   - Remove two screws (9), Lead 2 (10), and Lead 95 (11) from switch (7). Use 1/4 inch flat tip screwdriver.

6. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY FROM CONDUIT ASSEMBLY BETWEEN PUSHBUTTON CONTROL STATION AND JUNCTION BOX JB4. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



N. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB INSTALLATION

1. PERFORM PUSHBUTTON CONTROL STATION CABLE ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB WIRE DESTINATION LIST.)

PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB WIRE DESTINATION LIST

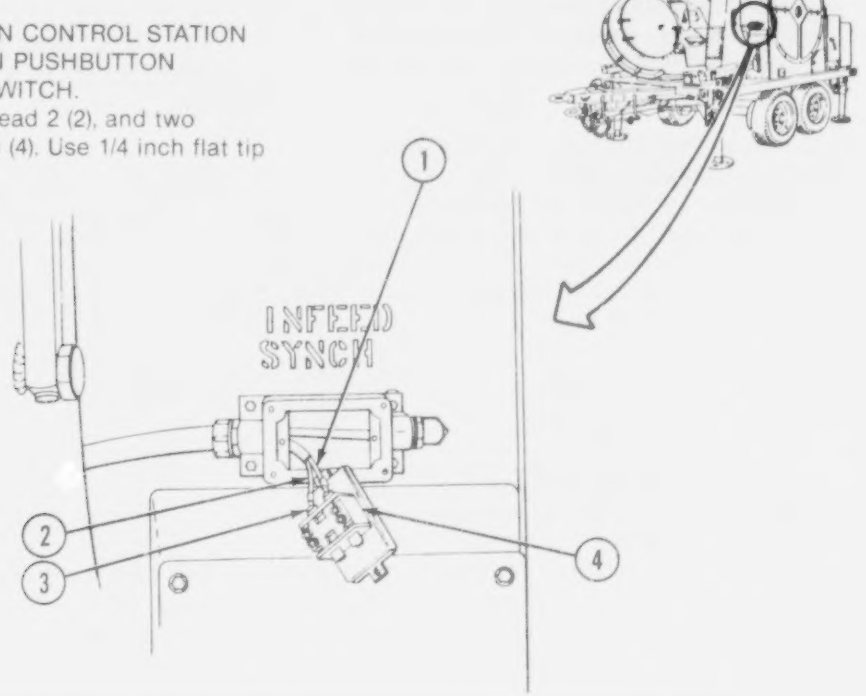
Switch 3PB Contact	Wire No.	P15 Destination Contact
95	95	K
2	2	L

2. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY IN CONDUIT ASSEMBLY BETWEEN PUSHBUTTON CONTROL STATION AND JUNCTION BOX JB4. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB LOCATOR, PAGE 20-27.)

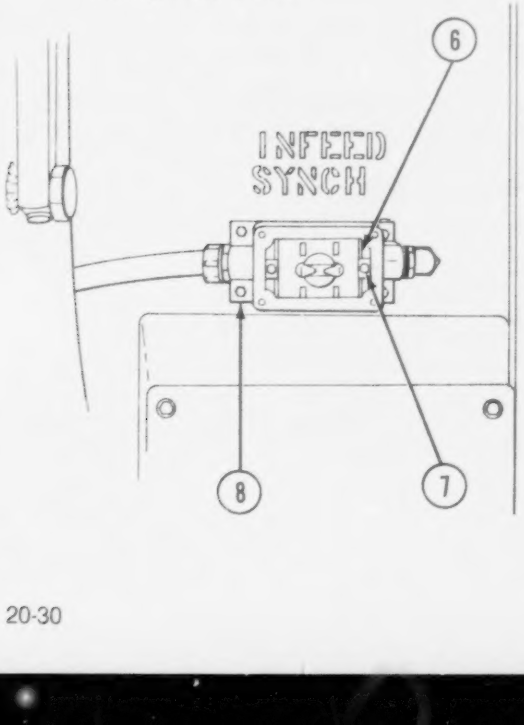
GO TO NEXT PAGE

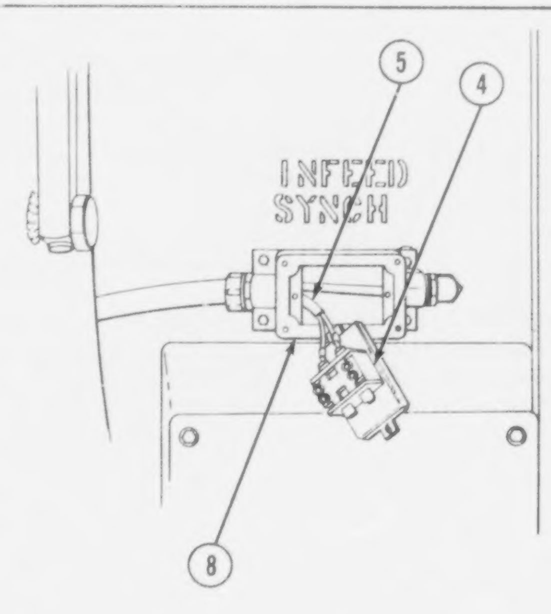
N. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB INSTALLATION — Continued

3. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY ON PUSHBUTTON CONTROL STATION SWITCH.
   - Install Lead 95 (1), Lead 2 (2), and two screws (3) on switch (4). Use 1/4 inch flat tip screwdriver.



4. INSTALL PUSHBUTTON CONTROL STATION SWITCH IN PUSHBUTTON CONTROL STATION.
   - Install switch (4) with cable assembly (5), switch plate (6), and two screws (7) on pushbutton control station (8). Use 1/4 inch flat tip screwdriver.

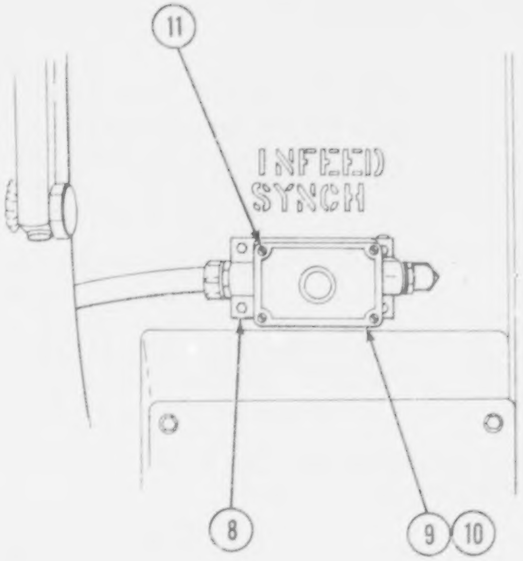




5. INSTALL COVER ON PUSHBUTTON CONTROL STATION.
   - Install new gasket (9), cover (10), and four screws (11) on pushbutton control station (8). Use 5/16 inch flat tip screwdriver.

6. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEE AND CONDUIT CROSS. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

7. INSTALL CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)



NOTE

FOLLOW-ON MAINTENANCE:

Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-4 LEFT MAGAZINE CONTROL WIRING INSTALLATION — Continued

O. LEFT MAGAZINE CONTROL WIRING BUNDLE REMOVAL

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Open Left Magazine Access Doors. (See TM 9-1095-205-10.)

1. REMOVE CONNECTOR P15 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-4.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEE, CONDUIT CROSS, AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

3. REMOVE LEFT MAGAZINE INTERNAL WIRING HARNESS FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-9.)

4. REMOVE CABLE ASSEMBLY P13 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-12.)

5. REMOVE CABLE ASSEMBLY P27 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-16.)

6. REMOVE CABLE ASSEMBLY P39 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-19.)

7. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-27.)

8. REMOVE CABLE ASSEMBLY J47 FROM DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-23.)

P. LEFT MAGAZINE CONTROL WIRING BUNDLE INSTALLATION

1. INSTALL CABLE ASSEMBLY J47 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-25.)

2. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 3PB ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-29.)

3. INSTALL CABLE ASSEMBLY P39 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-21.)

4. INSTALL CABLE ASSEMBLY P27 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-17.)

5. INSTALL CABLE ASSEMBLY P13 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-14.)

6. INSTALL LEFT MAGAZINE INTERNAL WIRING HARNESS ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-10.)

7. INSTALL CONDUIT FITTING COVERS ON CONDUIT CROSS, CONDUIT TEE, AND PULLING ELBOWS. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

8. INSTALL CONNECTOR P15 ON DISPENSER. (SEE LEFT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-5.)

NOTE

FOLLOW-ON MAINTENANCE:
Close Left Magazine Access Doors. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

END OF TASK

20-5 LEFT MAGAZINE CONDUIT

DESCRIPTION

This task covers:
A. REMOVAL (p 20-37)
B. INSTALLATION (p 20-44)

INITIAL SETUP

Tools and Special Tools:

- General mechanic's tool kit 5180-00-177-7033:
  - No. 2 cross tip screwdriver
  - 7/16 inch open end wrench
- 10 inch pipe wrench (2) 5120-00-277-1485
- 12 inch adjustable wrench (2) 5120-00-264-3796
- 6 inch strap wrench 5120-00-262-8491
- Slip joint pliers 5120-00-278-0351
- No. 2 cross tip offset screwdriver 5120-00-256-9014

Materials/Parts:

- Sealing compound, Item 25, Appendix B
- Sealing O-ring (2) 5330-00-588-0892
- Conduit lock nut 5975-01-058-3838
- Liquid tight connector (2) 5975-00-983-9229
- Lock washer (10) 5310-00-559-0070

Personnel Required:

- Electrical repairer
- Helper

References:

- TM 9-1095-205-10
- TM 9-1095-205-20
- LEFT MAGAZINE CONTROL WIRING INSTALLATION, Page 20-3

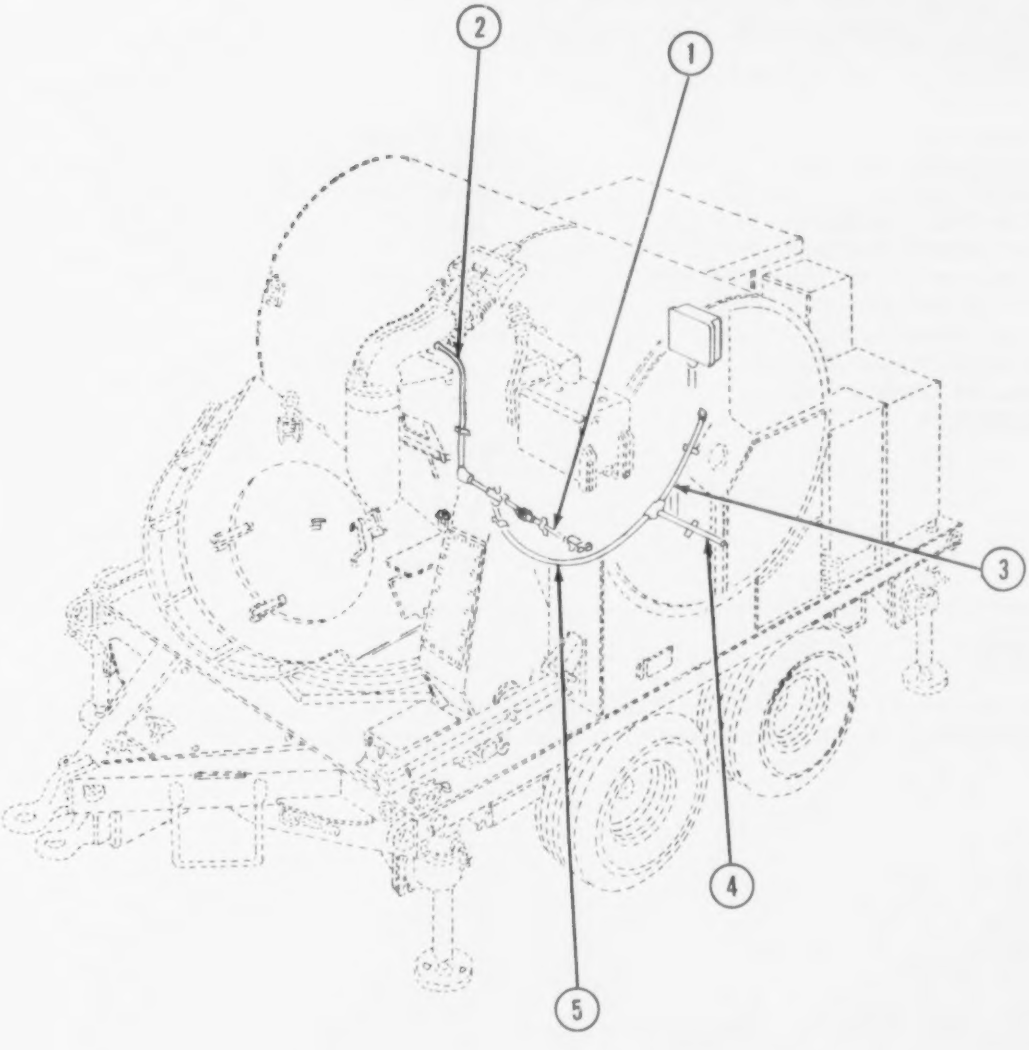
OVERVIEW

All pipe thread fittings and threaded rigid conduits (Conduits A, B, C, and D) require sealant. Clean conduits and fittings. Apply sealing compound to all male pipe threads.

GO TO NEXT PAGE

OVERVIEW — Continued

Use the following Left Magazine Conduit Locator to find parts of the left magazine conduit.



① FLEXIBLE CONDUIT
② CONDUIT A
③ CONDUIT B
④ CONDUIT C
⑤ CONDUIT D

Left Magazine Conduit Locator

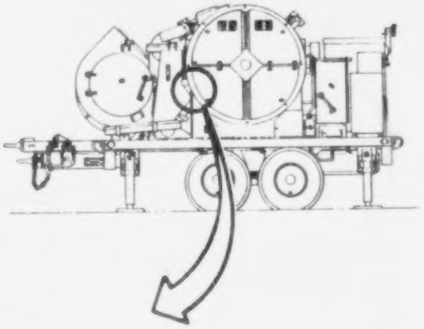
A. REMOVAL

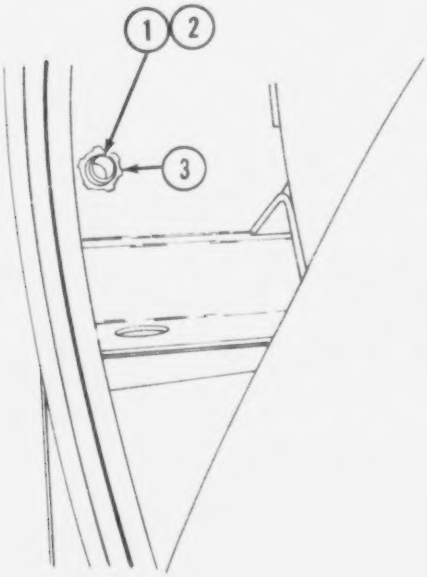
NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-20.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Swing Launcher To Far Right. (See TM 9-1095-205-10.)
Open Left Magazine Access Doors. (See TM 9-1095-205-10.)
Remove Left Magazine Control Wiring Bundle. (See Left Magazine Control Wiring Installation, Page 20-3.)

1. REMOVE CONDUIT LOCK NUT FROM CONDUIT NIPPLE.
   - Remove conduit lock nut (1) and sealing O-ring (2) from conduit nipple (3). Use slip joint pliers. Discard lock nut and sealing O-ring.





GO TO NEXT PAGE

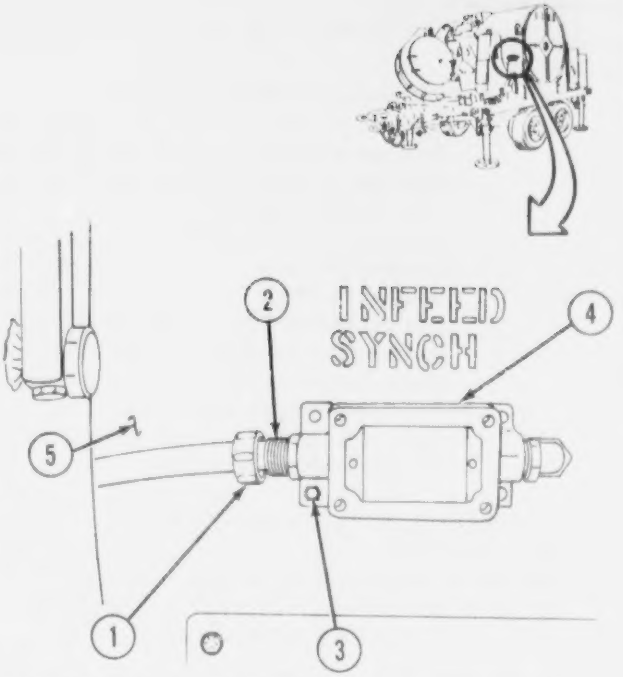
A. **REMOVAL — Continued**

2. REMOVE PUSHBUTTON CONTROL STATION FROM MAGAZINE.
   - Loosen connector hub (1) from connector body (2). Use 12 inch adjustable wrench.
   - Remove two screws (3) from pushbutton control station (4). Use 7/16 inch open end wrench.
   - Remove pushbutton control station (4) from magazine (5).

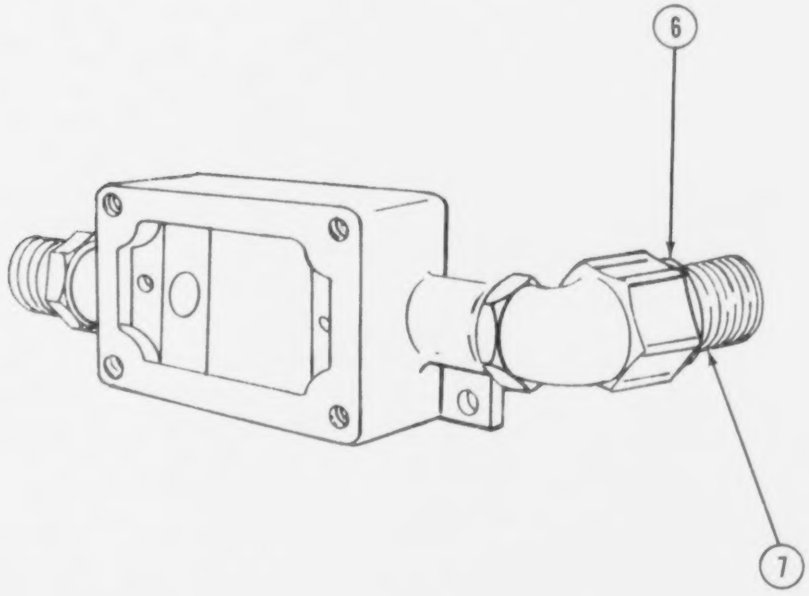
NOTE

Remove name plate from pushbutton control station if pushbutton control station is being replaced.

3. REMOVE LOAD ADVANCE/UNLOAD SWITCH NAME PLATE FROM PUSHBUTTON CONTROL STATION. (SEE TM 9-1095-205-20.)



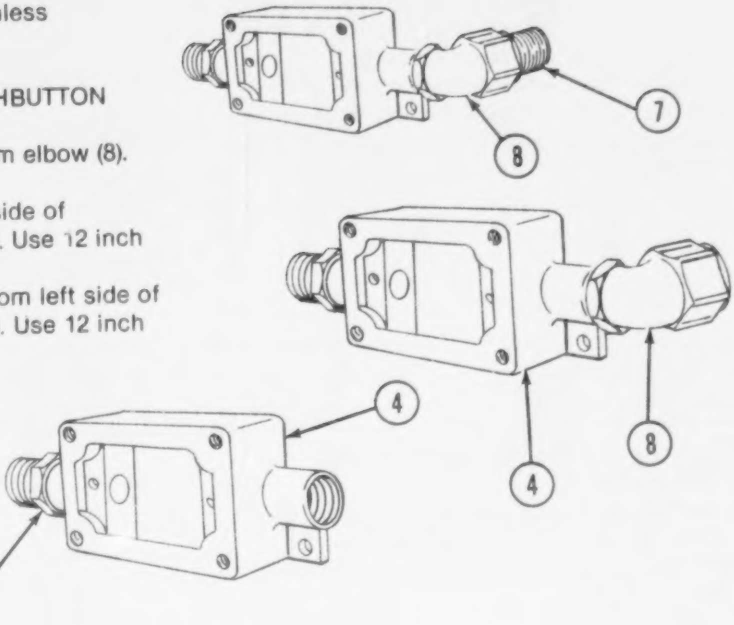
4. REMOVE SEALING O-RING FROM CONDUIT NIPPLE.
   - Remove sealing O-ring (6) from conduit nipple (7). Discard sealing O-ring.



NOTE

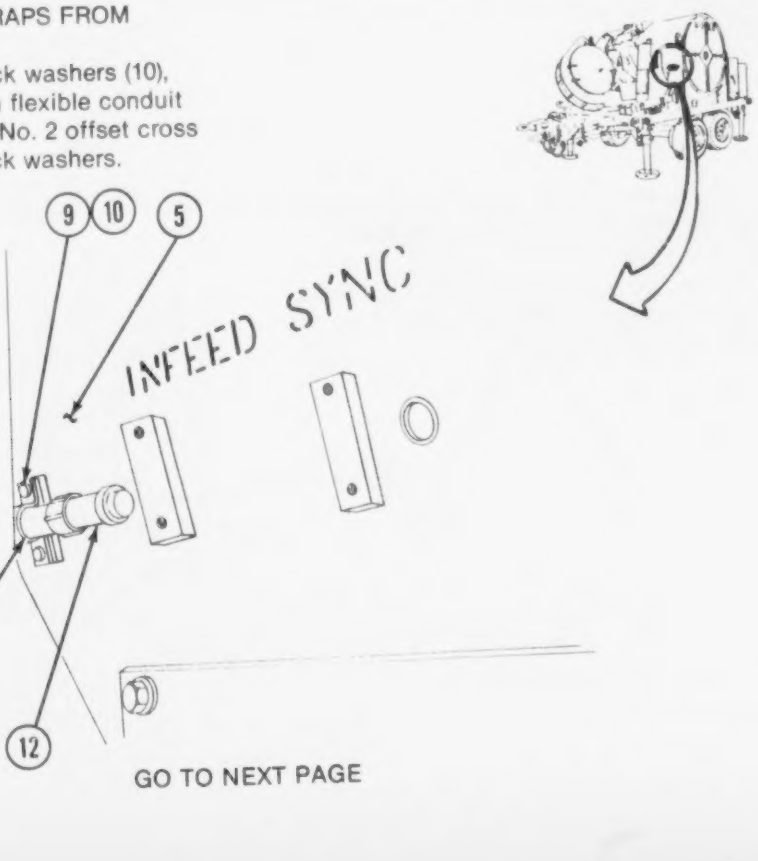
Do not remove conduit nipple unless required for maintenance.

5. REMOVE FITTINGS FROM PUSHBUTTON CONTROL STATION.
   - Remove conduit nipple (7) from elbow (8). Use 10 inch pipe wrench.
   - Remove elbow (8) from right side of pushbutton control station (4). Use 12 inch adjustable wrench.
   - Remove connector body (2) from left side of pushbutton control station (4). Use 12 inch adjustable wrench.



---

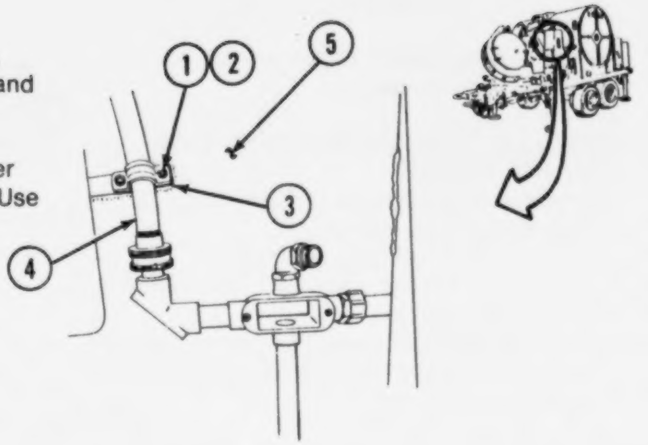
6. REMOVE FIVE CONDUIT STRAPS FROM MAGAZINE.
   - Remove two screws (9), lock washers (10), and conduit strap (11) from flexible conduit (12) and magazine (5). Use No. 2 offset cross tip screwdriver. Discard lock washers.



GO TO NEXT PAGE

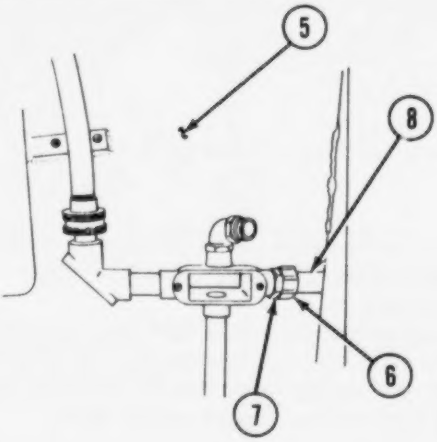
A. REMOVAL — Continued

- Remove two screws (1), lock washers (2), and conduit strap (3) from Conduit A (4) and magazine (5). Use No. 2 cross tip screwdriver. Discard lock washers.
- Repeat above removal step for three other conduit straps on Conduits B, C, and D. Use helper.



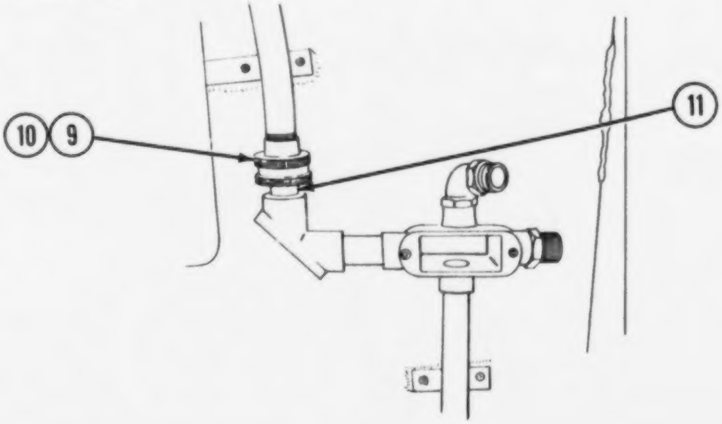
---

7. REMOVE FLEXIBLE CONDUIT FROM CONDUIT CROSS.
   - Remove connector hub (6) from connector body (7). Use 12 inch adjustable wrench.
   - Remove flexible conduit (8) from magazine (5).



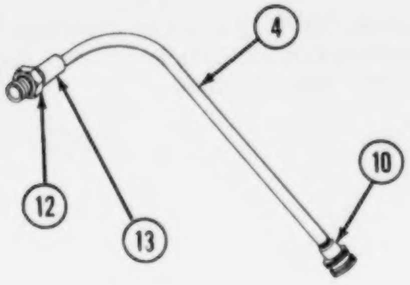
---

8. REMOVE CONDUIT A FROM CONDUIT PULLING ELBOW.
   - Turn conduit union sleeve (9), and remove union female end (10) from union male end (11). Use slip joint pliers.



NOTE

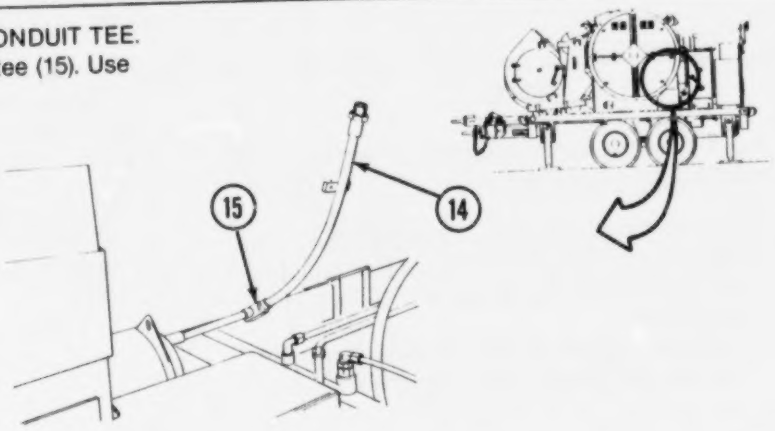
Do not remove conduit fittings unless required for maintenance.



9. REMOVE FITTINGS FROM CONDUIT A.
   - Remove connector body (12) from conduit coupling (13). Use 12 inch adjustable and 10 inch pipe wrenches.
   - Remove conduit coupling (13) from Conduit A (4). Use two 10 inch pipe wrenches.
   - Remove union female end (10) from Conduit A (4). Use two 10 inch pipe wrenches.

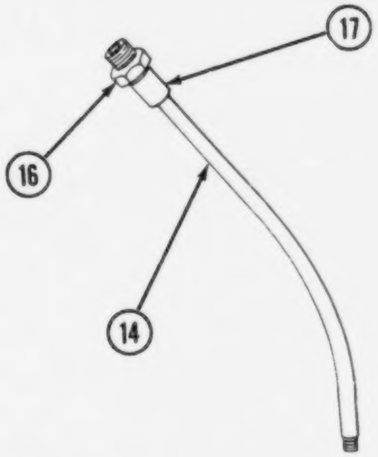
---

10. REMOVE CONDUIT B FROM CONDUIT TEE.
    - Remove Conduit B (14) from tee (15). Use two 10 inch pipe wrenches.



NOTE

Do not remove conduit fittings unless required for maintenance.

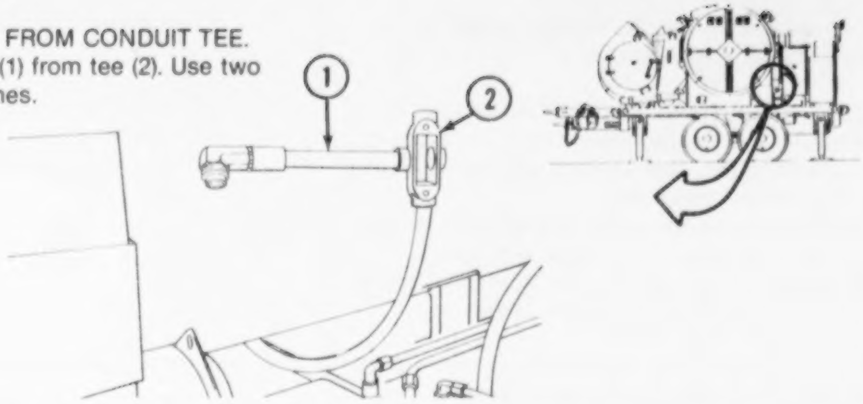


11. REMOVE FITTINGS FROM CONDUIT B.
    - Remove connector body (16) from conduit coupling (17). Use 12 inch adjustable and 10 inch pipe wrenches.
    - Remove conduit coupling (17) from Conduit B (14). Use two 10 inch pipe wrenches.

GO TO NEXT PAGE

A. REMOVAL — Continued

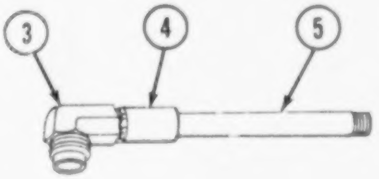
12. REMOVE CONDUIT C FROM CONDUIT TEE.
    - Remove Conduit C (1) from tee (2). Use two 10 inch pipe wrenches.



NOTE

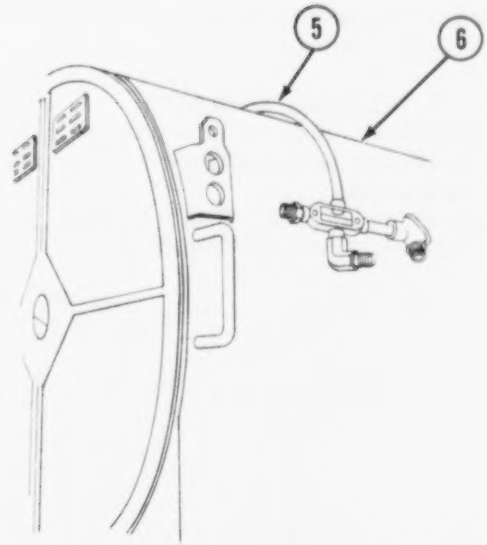
Do not remove conduit fittings unless required for maintenance.

13. REMOVE FITTINGS FROM CONDUIT C.
    - Remove 90° elbow (3) from conduit coupling (4). Use 12 inch adjustable and 10 inch pipe wrenches.
    - Remove conduit coupling (4) from Conduit C (1). Use two 10 inch pipe wrenches.



---

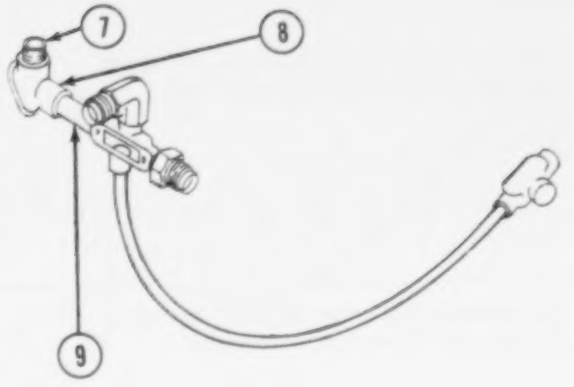
14. REMOVE CONDUIT D WITH CONDUIT TEE, CONDUIT CROSS, CONDUIT NIPPLE, AND CONDUIT PULLING ELBOW FROM MAGAZINE.
    - Slide Conduit D (5) up and over top of magazine (6).
    - Remove Conduit D (5) from magazine (6). Use helper.



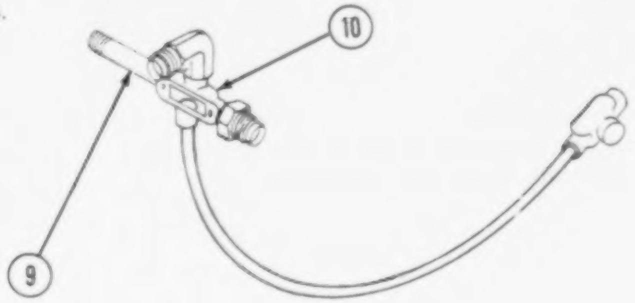
NOTE

Do not remove conduit fittings unless required for maintenance.

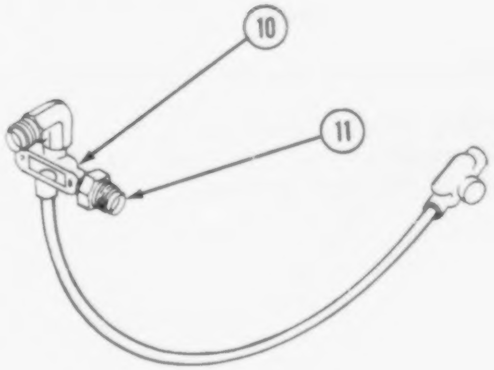
15. REMOVE FITTINGS FROM CONDUIT D.
    - Remove union male end (7) from conduit pulling elbow (8). Use two 10 inch pipe wrenches.
    - Remove conduit pulling elbow (8) from conduit nipple (9). Use two 10 inch pipe wrenches.



- Remove conduit nipple (9) from conduit cross (10). Use two 10 inch pipe wrenches.



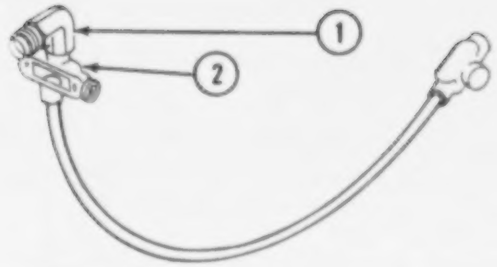
- Remove connector body (11) from conduit cross (10). Use 12 inch adjustable and 10 inch pipe wrenches.



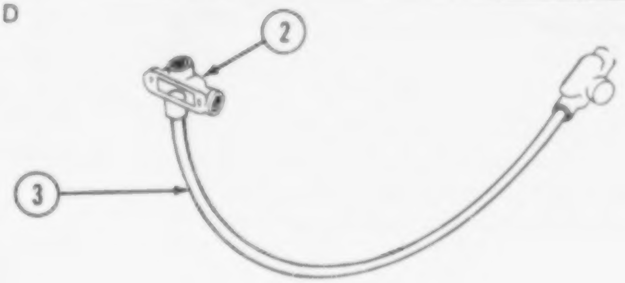
GO TO NEXT PAGE

A. REMOVAL — Continued

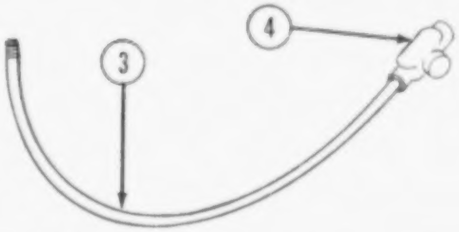
- Remove 90° elbow (1) from conduit cross (2). Use two 10 inch pipe wrenches.



- Remove conduit cross (2) from Conduit D (3). Use two 10 inch pipe wrenches.



- Remove conduit tee (4) from Conduit D (3). Use two 10 inch pipe wrenches.

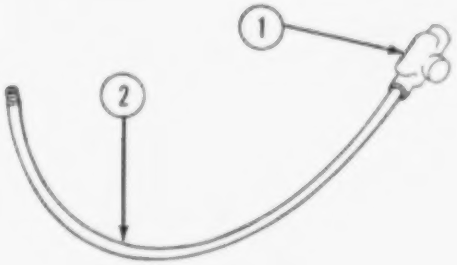


B. INSTALLATION

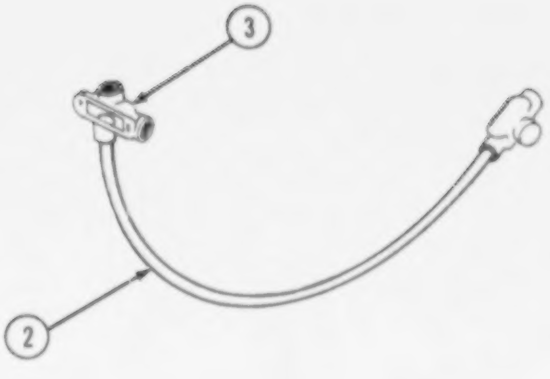
NOTE

If fittings were not removed, go to step 2.

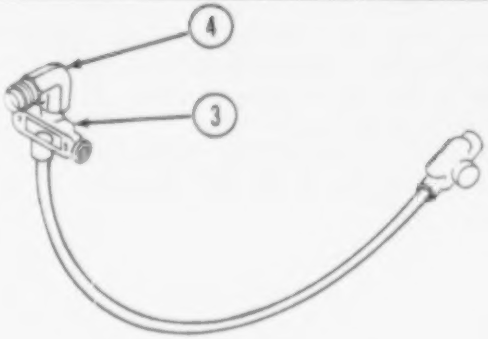
1. INSTALL FITTINGS ON CONDUIT D.
   - Install conduit tee (1) on Conduit D (2). Use two 10 inch pipe wrenches.



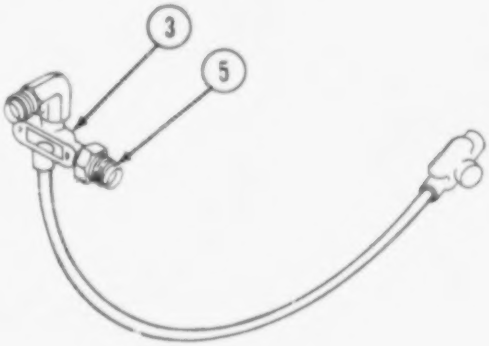
- Install conduit cross (3) on Conduit D (2). Use two 10 inch pipe wrenches.



- Install 90° elbow (4) on conduit cross (3). Use two 10 inch pipe wrenches.



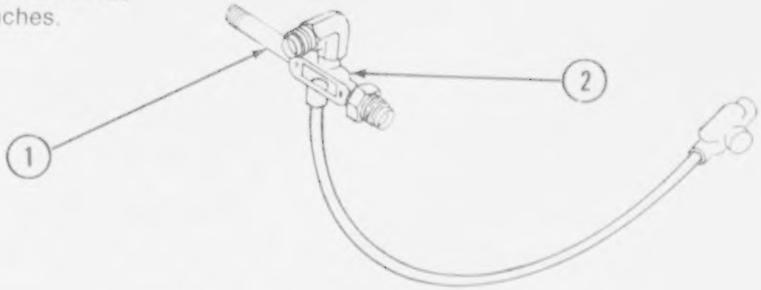
- Install connector body (5) on conduit cross (3). Use two 10 inch pipe wrenches.



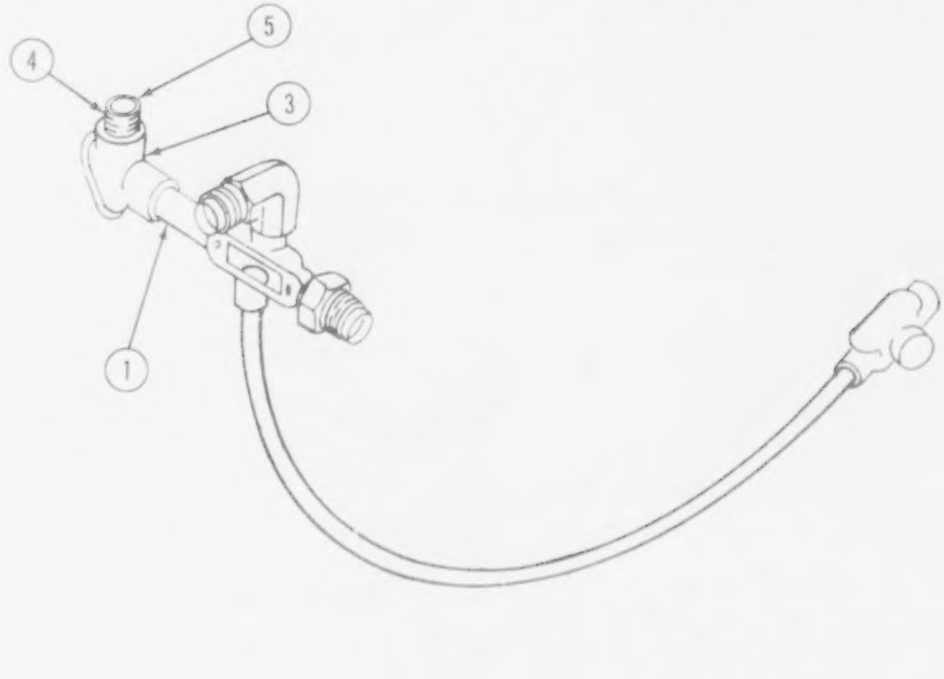
GO TO NEXT PAGE

B. INSTALLATION — Continued

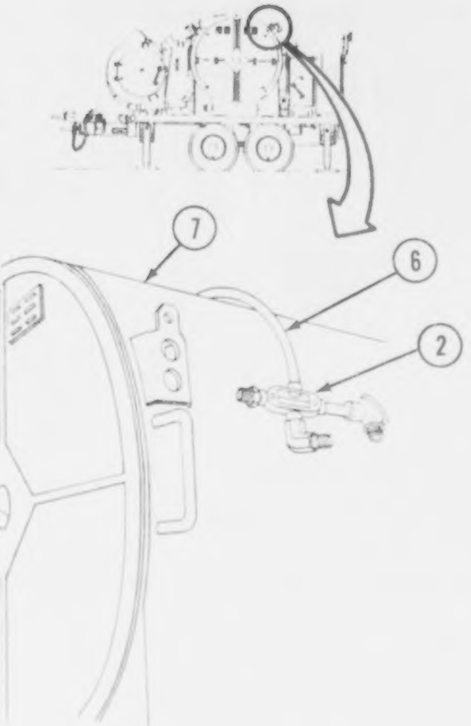
- Install conduit nipple (1) on conduit cross (2). Use two 10 inch pipe wrenches.

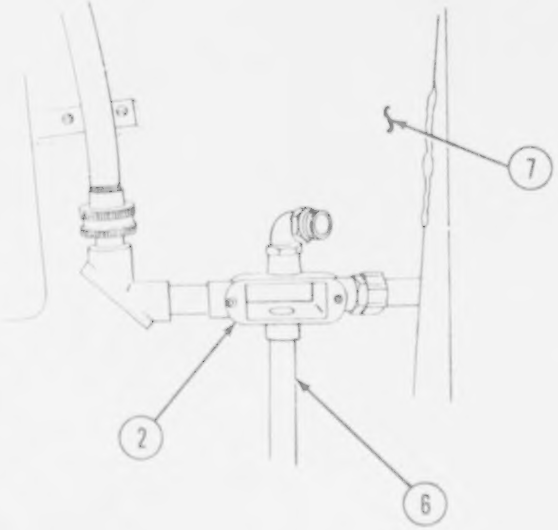


- Install conduit pulling elbow (3) on conduit nipple (1) with pipe threads (4) facing up. Use two 10 inch pipe wrenches.
- Install union male end (5) on conduit pulling elbow (3). Use two 10 inch pipe wrenches.



2. POSITION CONDUIT D WITH CONDUIT TEE, CONDUIT CROSS, CONDUIT NIPPLE, AND CONDUIT PULLING ELBOW UNDER MAGAZINE.
   - Position Conduit D (6) on magazine (7) with conduit cross (2) toward rear of magazine (7).
   - Slide Conduit D (6) under magazine (7) until conduit cross (2) is at front of magazine. Use helper.

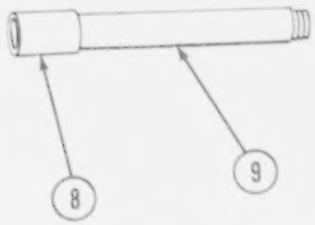


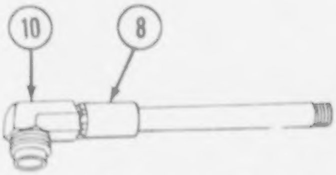


NOTE

If fittings were not removed, go to step 4.

3. INSTALL FITTINGS ON CONDUIT C.
   - Install conduit coupling (8) on Conduit C (9). Use two 10 inch pipe wrenches.
   - Install 90° elbow (10) on conduit coupling (8). Use 12 inch adjustable and 10 inch pipe wrenches.

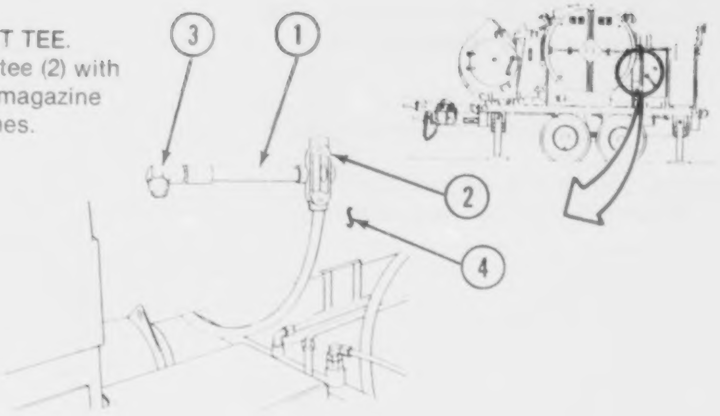




GO TO NEXT PAGE

B. INSTALLATION — Continued

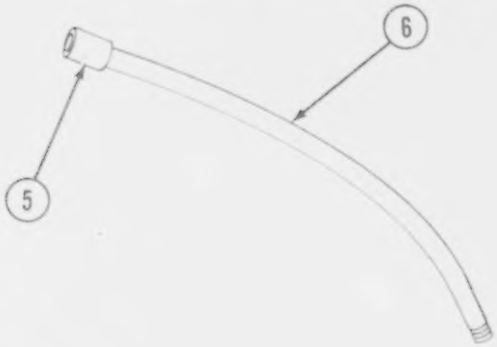
4. INSTALL CONDUIT C ON CONDUIT TEE.
   - Install Conduit C (1) on conduit tee (2) with 90° elbow (3) facing away from magazine (4). Use two 10 inch pipe wrenches.



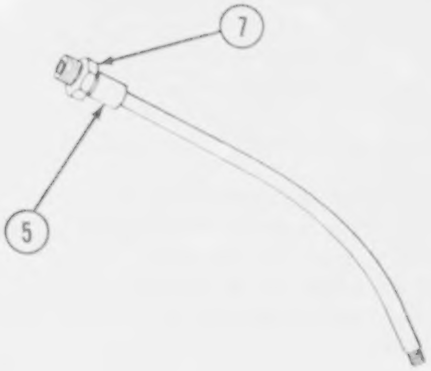
NOTE

If fittings were not removed, go to step 6.

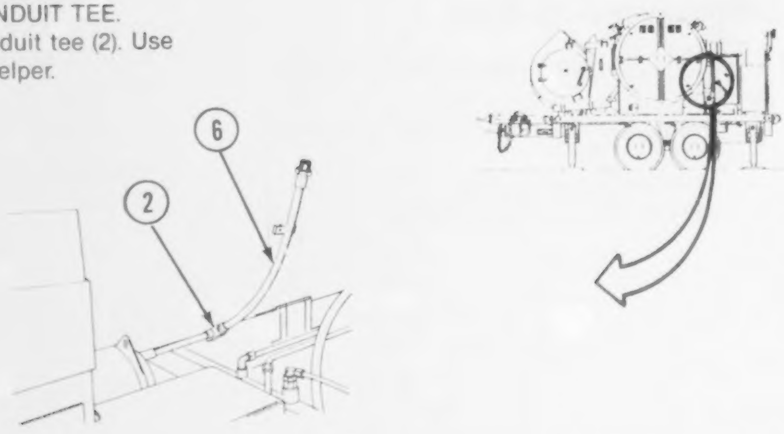
5. INSTALL FITTINGS ON CONDUIT B.
   - Install conduit coupling (5) on Conduit B (6). Use two 10 inch pipe wrenches.



- Install connector body (7) on conduit coupling (5). Use 12 inch adjustable and 10 inch pipe wrenches.



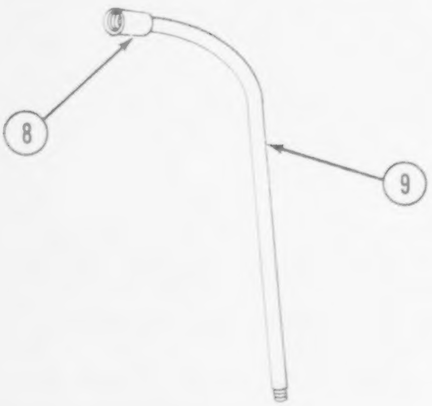
6. INSTALL CONDUIT B ON CONDUIT TEE.
   - Install Conduit B (6) on conduit tee (2). Use 10 inch pipe wrench. Use helper.



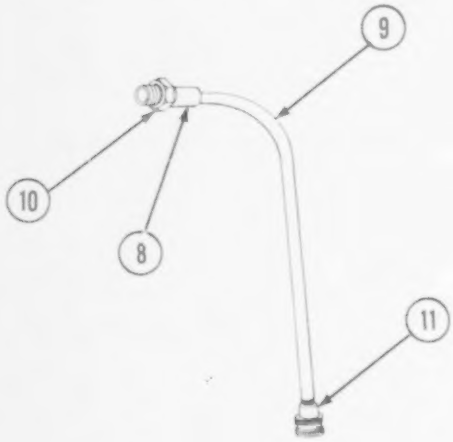
NOTE

If fittings were not removed, go to step 8.

7. INSTALL FITTINGS ON CONDUIT A.
   - Install conduit coupling (8) on Conduit A (9). Use two 10 inch pipe wrenches.



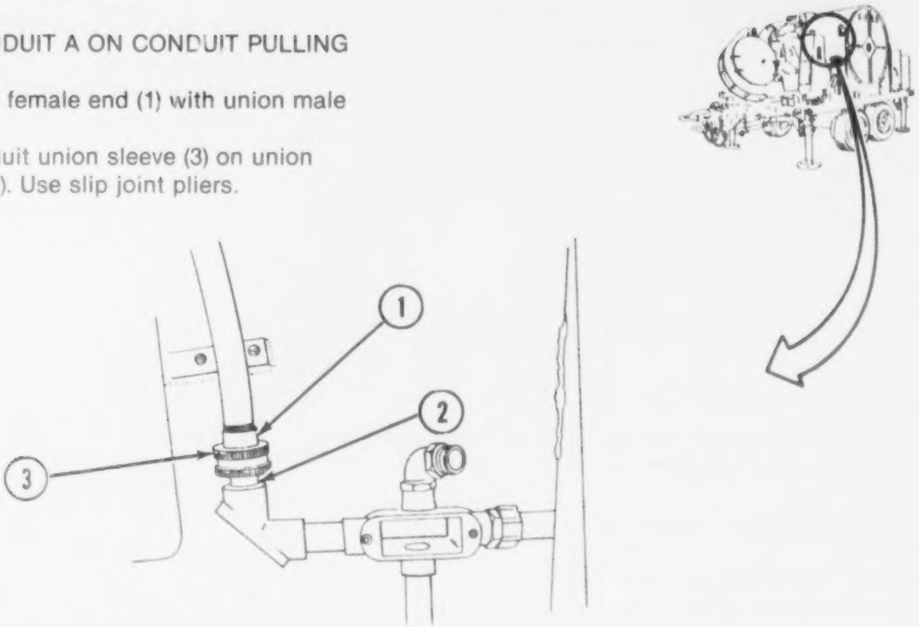
- Install connector body (10) on conduit coupling (8). Use 12 inch adjustable and 10 inch pipe wrenches.
- Install union female end (11) on Conduit A (9). Use two 10 inch pipe wrenches.



GO TO NEXT PAGE

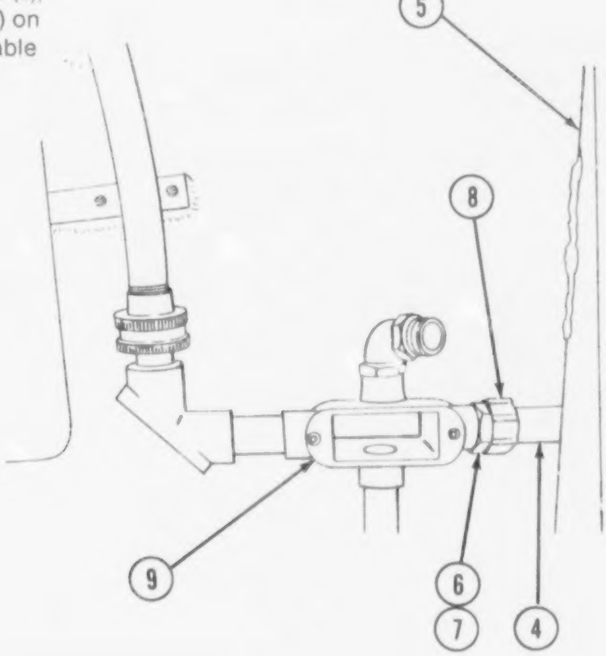
B. INSTALLATION — Continued

8. INSTALL CONDUIT A ON CONDUIT PULLING ELBOW.
   - Aline union female end (1) with union male end (2).
   - Install conduit union sleeve (3) on union male end (2). Use slip joint pliers.

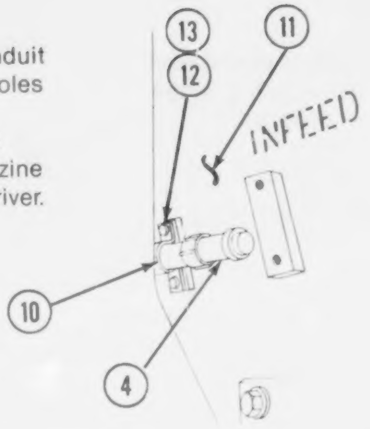


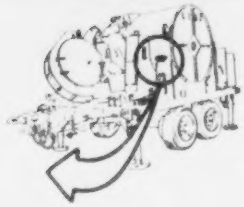
---

9. INSTALL FLEXIBLE CONDUIT ON CONDUIT CROSS.
   - Place flexible conduit (4) behind hydraulic reservoir (5).
   - Install flexible conduit (4), with sleeve (6), sealing ring (7), and connector hub (8) on conduit cross (9). Use 12 inch adjustable wrench.

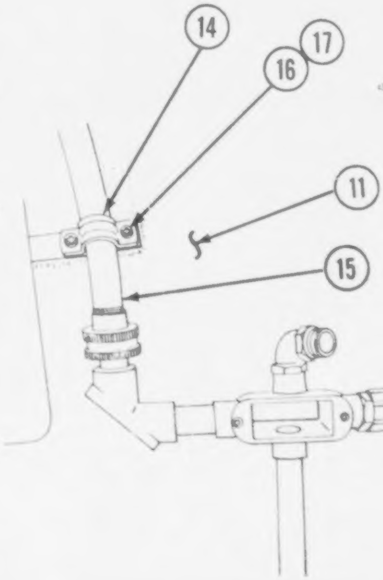


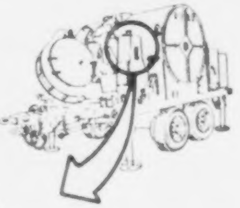
10. INSTALL FIVE CONDUIT STRAPS ON MAGAZINE.
    - Place conduit strap (10) on flexible conduit (4) and magazine (11), with mounting holes alined.
    - Install conduit strap (10), two new lock washers (12), and screws (13) on magazine (11). Use No. 2 offset cross tip screwdriver.





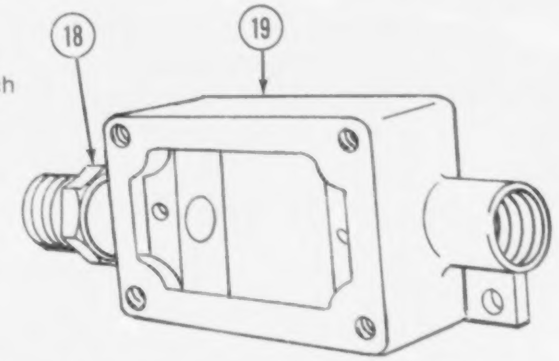
- Place conduit strap (14) on Conduit A (15), and magazine (11), with mounting holes alined.
- Install conduit strap (14), two new lock washers (16), and screws (17) on magazine (11). Use No. 2 cross tip screwdriver. Use helper.
- Repeat above installation steps for other three conduit straps on Conduits B, C, and D.





---

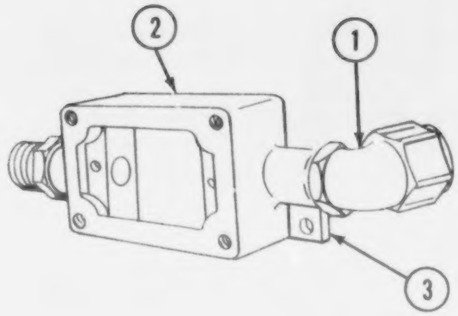
11. INSTALL FITTINGS ON PUSHBUTTON CONTROL STATION.
    - Install connector body (18) on left side of pushbutton control station (19). Use 12 inch adjustable wrench.



GO TO NEXT PAGE

B. INSTALLATION — Continued

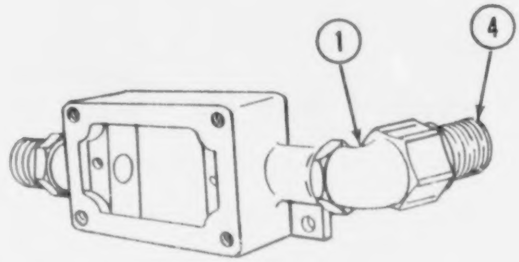
- Install elbow (1) on right side of pushbutton control station (2), with elbow facing flange (3). Use 12 inch adjustable wrench.



NOTE

If conduit nipple was not removed, go to step 12.

- Install conduit nipple (4) on elbow (1). Use 6 inch strap wrench.



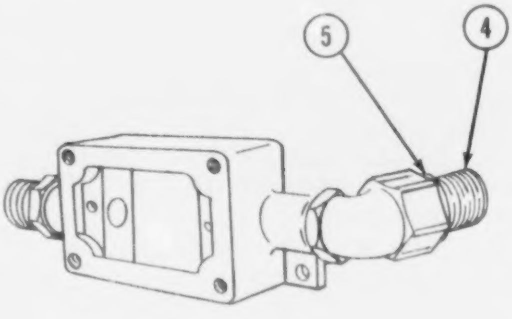
---

12. INSTALL NEW SEALING O-RING (5) ON CONDUIT NIPPLE (4).

NOTE

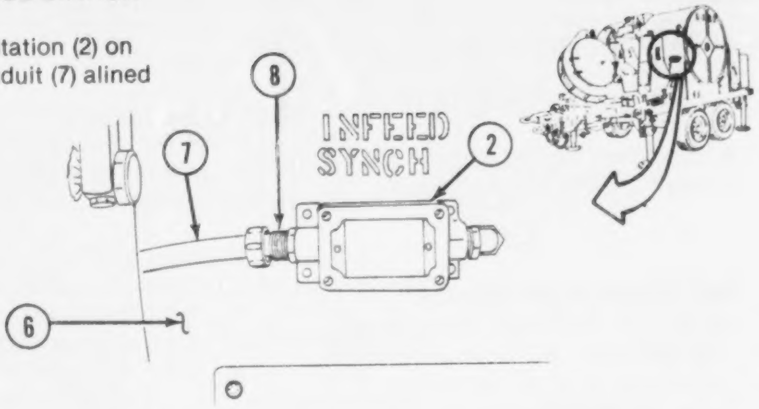
If name plate was not removed, go to step 14.

13. INSTALL LOAD ADVANCE/UNLOAD SWITCH NAME PLATE ON PUSHBUTTON CONTROL STATION. (SEE TM 9-1095-205-20.)

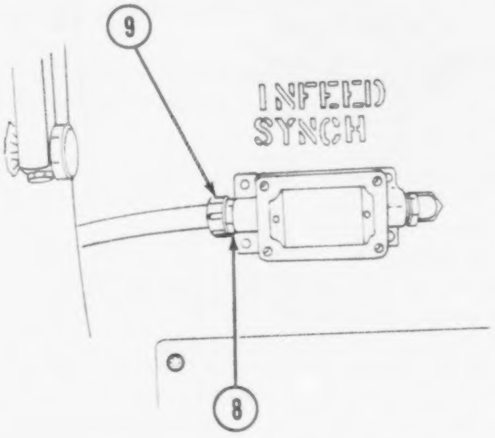


14. INSTALL PUSHBUTTON CONTROL STATION ON LEFT MAGAZINE.

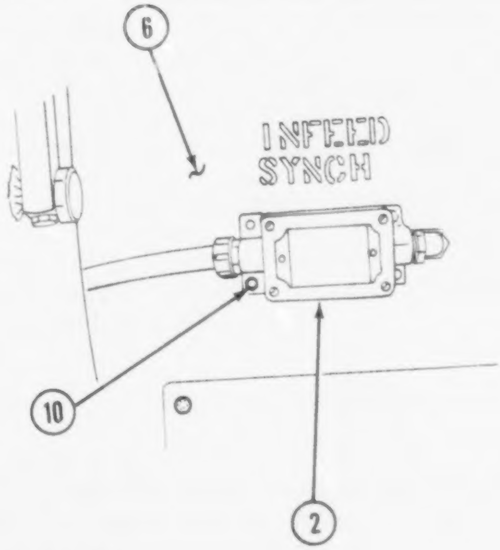
- Position pushbutton control station (2) on magazine (6) with flexible conduit (7) alined with connector body (8).



- Tighten connector hub (9) on connector body (8). Use 12 inch adjustable wrench.



- Install pushbutton control station (2) and two screws (10) on magazine (6). Use 7/16 inch open end wrench.



GO TO NEXT PAGE

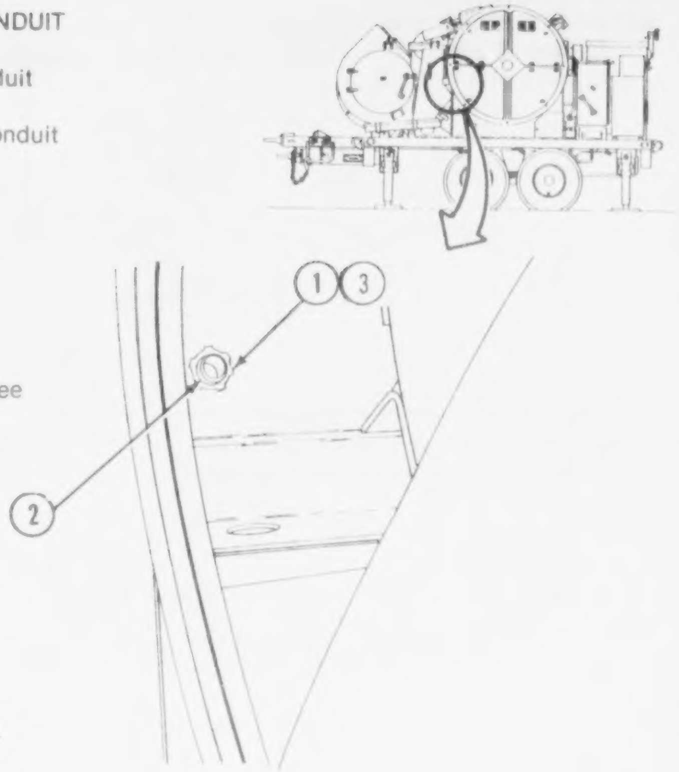
B. INSTALLATION — Continued

15. INSTALL CONDUIT LOCK NUT ON CONDUIT NIPPLE.
    - Install new sealing O-ring (1) on conduit nipple (2).
    - Install new conduit lock nut (3) on conduit nipple (2). Use slip joint pliers.

NOTE

FOLLOW-ON MAINTENANCE:

Install Left Magazine Control Wiring Bundle. (See Left Magazine Control Wiring Installation, Page 20-3.)
Close Left Magazine Access Doors. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)



END OF TASK

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION

DESCRIPTION

This task covers:

A. CONNECTOR P18 REMOVAL (p 20-56)
B. CONNECTOR P18 INSTALLATION (p 20-57)
C. RIGHT MAGAZINE INTERNAL WIRING HARNESS REMOVAL (p 20-61)
D. RIGHT MAGAZINE INTERNAL WIRING HARNESS INSTALLATION (p 20-62)
E. CABLE ASSEMBLY P12 REMOVAL (p 20-64)
F. CABLE ASSEMBLY P12 INSTALLATION (p 20-66)
G. CABLE ASSEMBLY P28 REMOVAL (p 20-68)
H. CABLE ASSEMBLY P28 INSTALLATION (p 20-69)
I. CABLE ASSEMBLY J48 REMOVAL (p 20-71)
J. CABLE ASSEMBLY J48 INSTALLATION (p 20-73)
K. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB REMOVAL (p 20-75)
L. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB INSTALLATION (p 20-77)
M. RIGHT MAGAZINE CONTROL WIRING BUNDLE REMOVAL (p 20-80)
N. RIGHT MAGAZINE CONTROL WIRING BUNDLE INSTALLATION (p 20-81)

INITIAL SETUP

Tools and Special Tools:

- General mechanic's tool kit 5180-00-177-7033:
  - No. 2 cross tip screwdriver
  - 1/4 inch flat tip screwdriver
  - 3/8 inch flat tip screwdriver
  - Pocket knife
  - Long nose pliers
  - Putty knife
  - 10 inch adjustable wrench
- Slip joint pliers 5120-00-278-0351
- Wire marker
- Heat gun 4900-00-561-1002
- Measuring tape 5120-00-287-3335

Materials/Parts:

Epoxy, Item 7, Appendix B
Solvent, Item 28, Appendix B
Rags, Item 22, Appendix B
Gasket 5310-01-143-4915
Thermofit boot (19200) 9317974-6
Lock washer (4) 5310-00-579-0079

Materials/Parts — Continued:

Heat shrink tubing 5970-00-914-3118
Connector 5935-01-042-3770
Adhesive sealant, Item 2, Appendix B
Duct sealing compound, Item 6, Appendix B

Personnel Required:

Electrical repairer

References:

TM 9-1095-205-10
TM 9-1095-205-20
TM 55-1500-323-25
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, Page 16-3
FUEL TANK ASSEMBLY, Page 13-3
RIGHT INFEED CONVEYOR AND RIGHT END COVER ASSEMBLIES, Page 7-7
TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES, Page 3-3

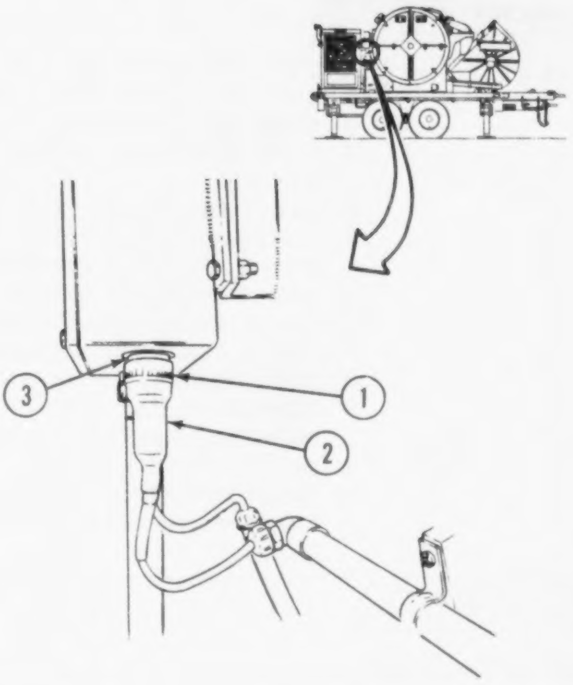
OVERVIEW

This task describes how to remove and install the right magazine control wiring as separate cable assemblies, or as a wire bundle. The parts listed under Materials/ Parts are for use with the instructions referenced in task Cable, Wire Bundle, and Lead Assemblies, Page 16-3.

GO TO NEXT PAGE

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION — Continued

A. CONNECTOR P18 REMOVAL



NOTE

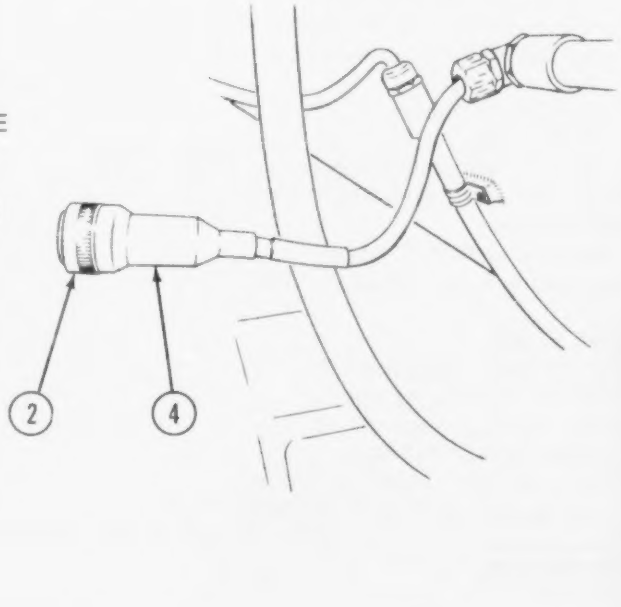
PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

1. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P18 (2) FROM RECEPTACLE P18 (3).

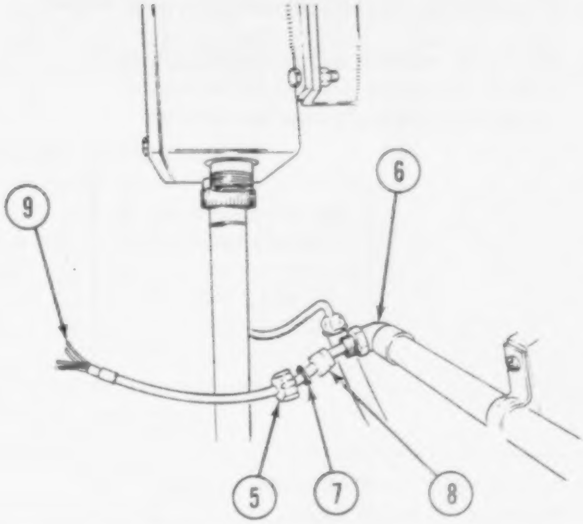
NOTE

Tag and mark each lead after removal.

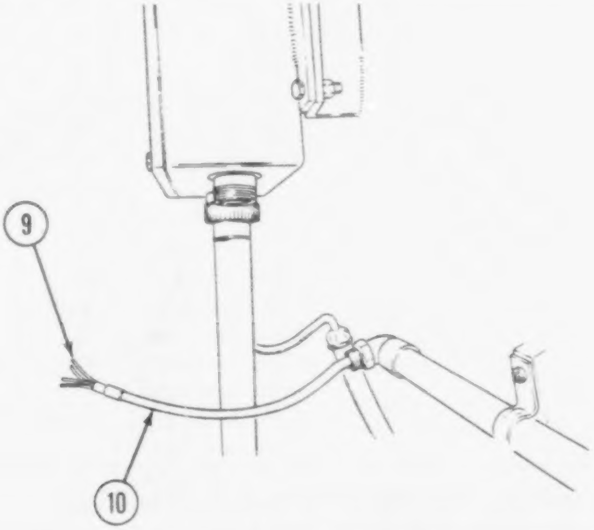


2. REMOVE CONNECTOR P18 FROM RIGHT MAGAZINE CONTROL WIRING BUNDLE. (SEE TM 55-1500-323-25.)
   - Remove thermofit boot (4) from Connector P18 (2). Use pocket knife. Discard thermofit boot.
   - Unsolder leads at Connector P18. (See TM 55-1500-323-25.)
   - Tag and mark leads.

3. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (5) from connector body (6). Use 10 inch adjustable wrench.
   - Remove hub (5), spacer (7), and bushing (8) from cable (9). Discard hub, spacer, and bushing.

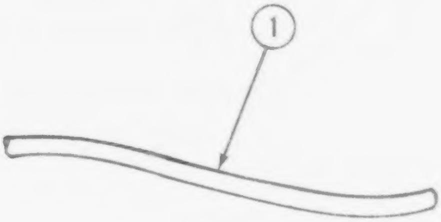


4. REMOVE HEAT SHRINK TUBE FROM CABLE.
   - Remove heat shrink tube (10) from cable (9). Use pocket knife and long nose pliers. Discard heat shrink tube.



B. CONNECTOR P18 INSTALLATION

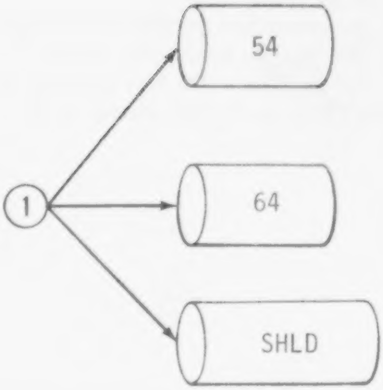
1. CUT HEAT SHRINK TUBE.
   - Cut heat shrink tube (1) 14 in. (35.6 cm) long. Use pocket knife and measuring tape.



GO TO NEXT PAGE

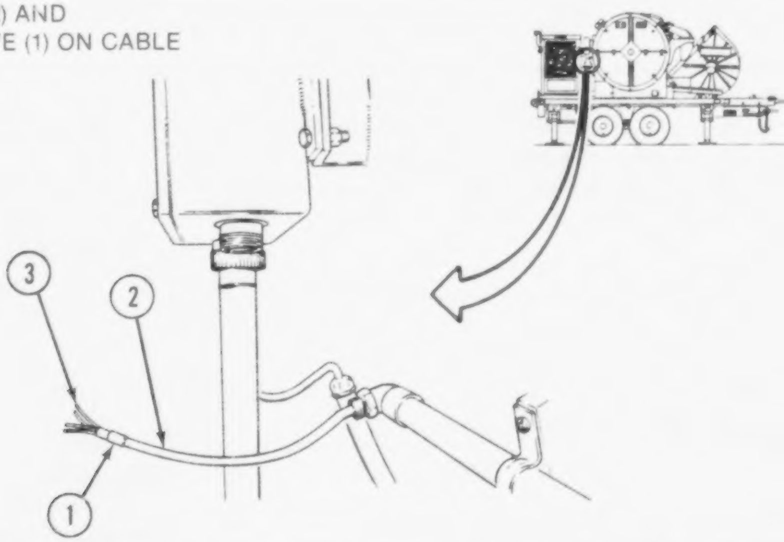
B. CONNECTOR P18 INSTALLATION — Continued

2. PREPARE THERMOFIT MARKING SLEEVE.
   - Mark connector number on thermofit marking sleeve (1). Use wire marker.



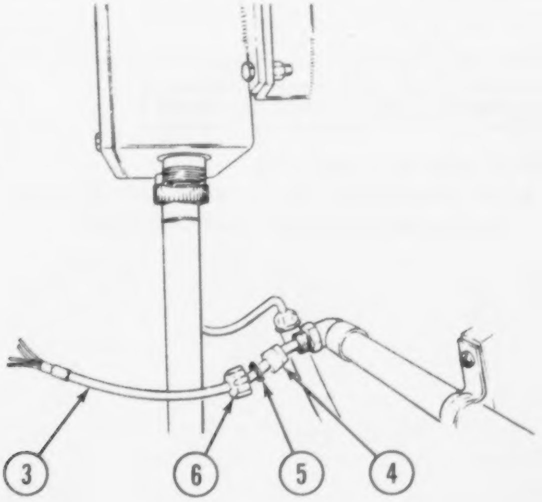
---

3. PLACE HEAT SHRINK TUBE (2) AND THERMOFIT MARKING SLEEVE (1) ON CABLE (3).



---

4. INSTALL NEW BUSHING (4), NEW SPACER (5), AND NEW HUB (6) ON CABLE (3).



5. PERFORM CABLE ASSEMBLY P18 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE CONNECTOR P18 WIRE DESTINATION LIST.)

CABLE CONNECTOR P18 WIRE DESTINATION LIST

Connector P18 Contact	Wire No.	PB Switch/Connector Destination Contact
X	94	Switch 4PB Lead 94
Y	2	Switch 4PB Lead 2
g	. . .	. . .
f	. . .	. . .
J	. . .	. . .
H	. . .	. . .
W	. . .	. . .
F	. . .	. . .
E	. . .	. . .
D	. . .	. . .
V	. . .	. . .
C	. . .	. . .
B	. . .	. . .
k	2	Connector P28 D
j	54	Connector P28 B
a	64	Connector P28F
b	Shield	. . .
A	2	Connector J48 B
T	54	Connector J48 A
S	58	Connector J48 C
d	Shield	Connector J48 N
R	2	Connector J48 E
P	54	Connector J48 D
N	59	Connector J48 F
c	Shield	Connector J48 P
M	2	Connector J48 H
L	54	Connector J48 G
K	63	Connector J48 J
Z	Shield	Connector J48 R
U	2	Connector P12 A
e	17	Connector P12 B
i	66	Connector P12 C
h	Shield	. . .

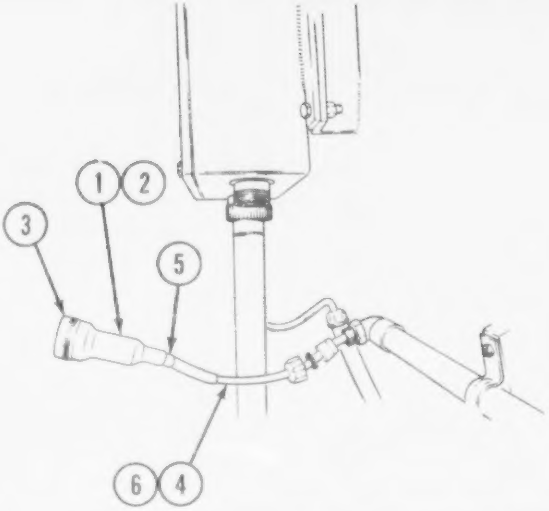
GO TO NEXT PAGE

B. CONNECTOR P18 INSTALLATION — Continued

NOTE

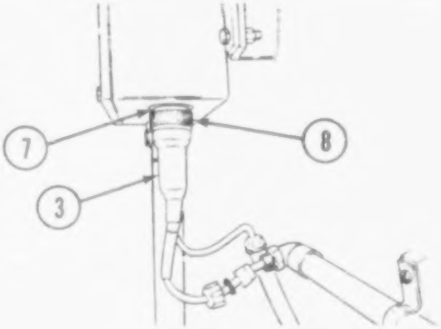
Remove tag from each lead after installation.

6. INSTALL CONNECTOR P18 IN RIGHT MAGAZINE CONTROL WIRING BUNDLE. (SEE TM 55-1500-323-25.)
   - Position new thermofit boot (1) on control wiring bundle (2).
   - Solder leads at Connector P18 (3). (See TM 55-1500-323-25.)
   - Remove tags from leads.
   - Install heat shrink tube (4) and thermofit marking sleeve (5) on cable (6). Use heat gun.
   - Apply epoxy to thermofit boot (1).
   - Install thermofit boot (1) on Connector P18 (3). Use heat gun.



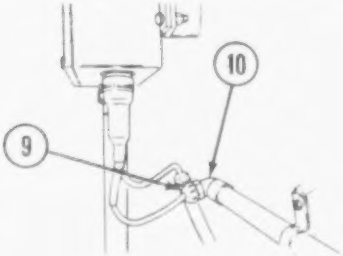
---

7. CONNECT CONNECTOR P18 (3) TO RECEPTACLE J18 (7), AND TURN CONNECTOR SLEEVE (8).



---

8. INSTALL CONNECTOR HUB ON CONNECTOR BODY.
   - Install connector hub (9) on connector body (10). Use 10 inch adjustable wrench.



NOTE

FOLLOW-ON MAINTENANCE:

Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

C. RIGHT MAGAZINE INTERNAL WIRING HARNESS REMOVAL

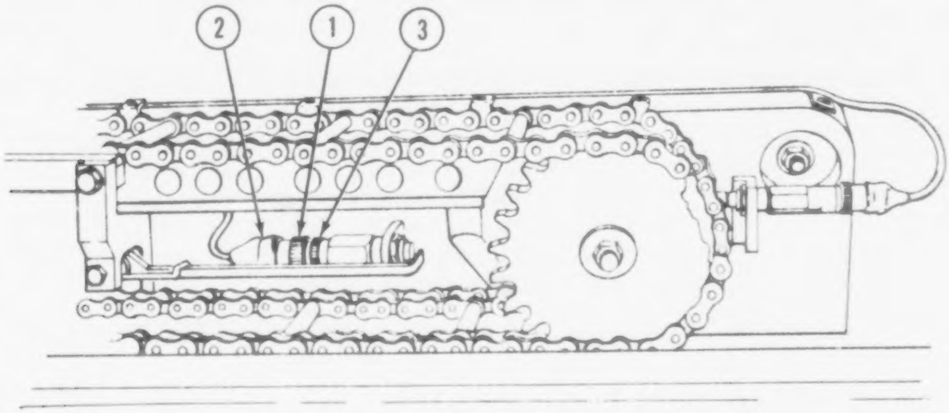
NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Right Mud Guard Lid And Catch. (See TM 9-1095-205-20.)
Remove Right Side Guard And Hinged Side Guard. (See TM 9-1095-205-20.)
Remove Right Infeed Chute Assembly. (See TM 9-1095-205-20.)
Unlock Right Magazine Drive Sprocket Locking Cam. (See TM 9-1095-205-10.)
Open Right Magazine Access Doors. (See TM 9-1095-205-10.)

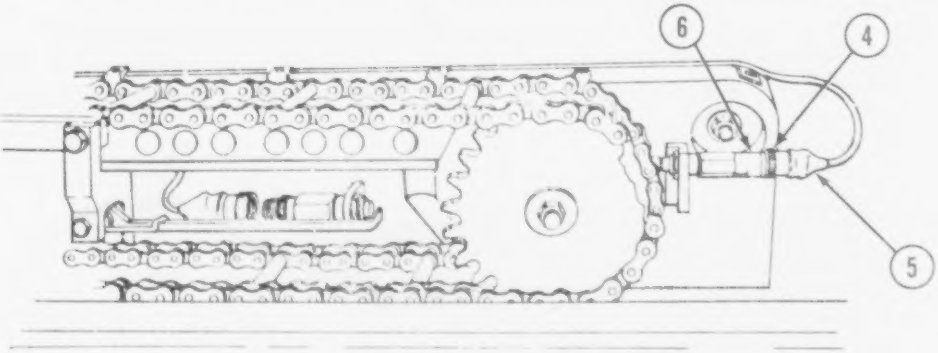
1. REMOVE RIGHT MAGAZINE INFEED CONVEYOR ASSEMBLY FROM RIGHT MAGAZINE ASSEMBLY. (SEE RIGHT INFEED CONVEYOR AND RIGHT END COVER ASSEMBLIES, PAGE 7-7.)

2. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P22 (2) FROM RECEPTACLE J22 (3).



---

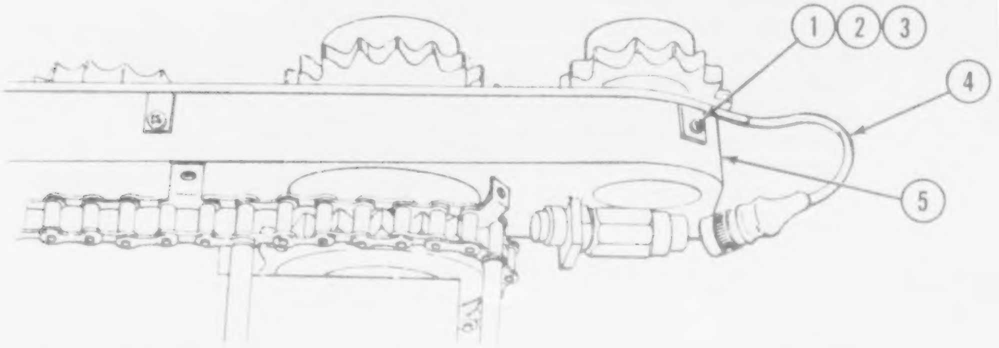
3. TURN CONNECTOR SLEEVE (4), AND DISCONNECT CONNECTOR P26 (5) FROM RECEPTACLE J26 (6).



GO TO NEXT PAGE

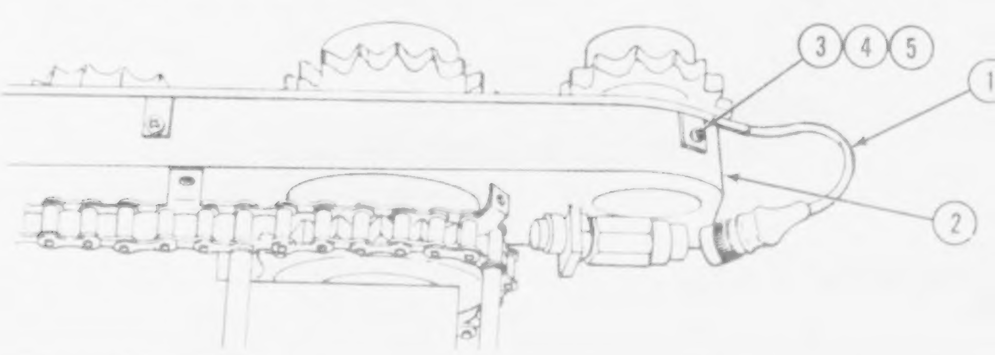
C. RIGHT MAGAZINE INTERNAL WIRING HARNESS REMOVAL — Continued

4. REMOVE INTERNAL WIRING HARNESS FROM RIGHT MAGAZINE INFEED CONVEYOR ASSEMBLY
   - Remove four screws (1), lock washers (2), washers (3), and wiring harness (4) from infeed conveyo assembly (5). Use No. 2 cross tip screwdriver. Discard lock washers.

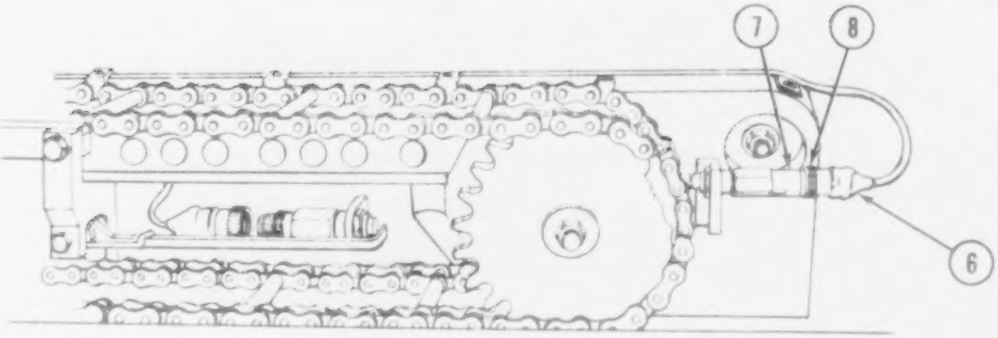


D. RIGHT MAGAZINE INTERNAL WIRING HARNESS INSTALLATION

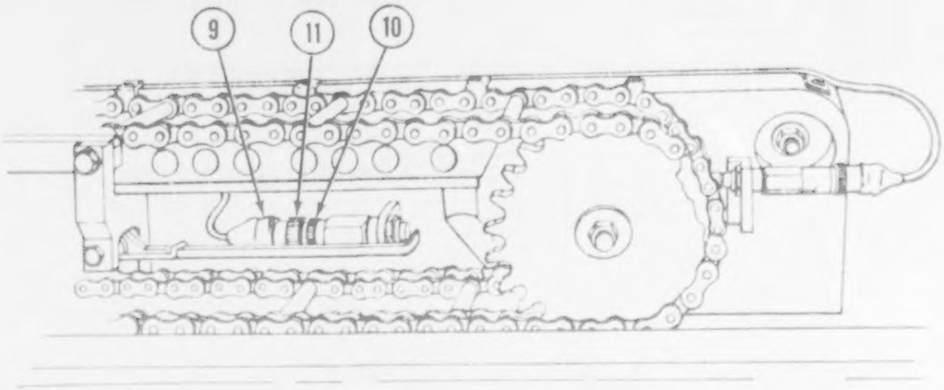
1. INSTALL INTERNAL WIRING HARNESS ON RIGHT MAGAZINE INFEED CONVEYOR ASSEMBLY.
   - Position wiring harness (1) on infeed conveyor assembly (2).
   - Install wiring harness (1), four washers (3), new lock washers (4), and screws (5) on infeed conveyo assembly (2). Use No. 2 cross tip screwdriver.



2. CONNECT CONNECTOR P26 (6) TO RECEPTACLE J26 (7), AND TURN CONNECTOR SLEEVE (8).



3. CONNECT CONNECTOR P22 (9) TO RECEPTACLE J22 (10), AND TURN CONNECTOR SLEEVE (11).



4. INSTALL RIGHT MAGAZINE INFEED CONVEYOR ASSEMBLY IN RIGHT MAGAZINE ASSEMBLY. (SEE RIGHT INFEED CONVEYOR AND RIGHT END COVER ASSEMBLIES, PAGE 7-7.)

NOTE

FOLLOW-ON MAINTENANCE:

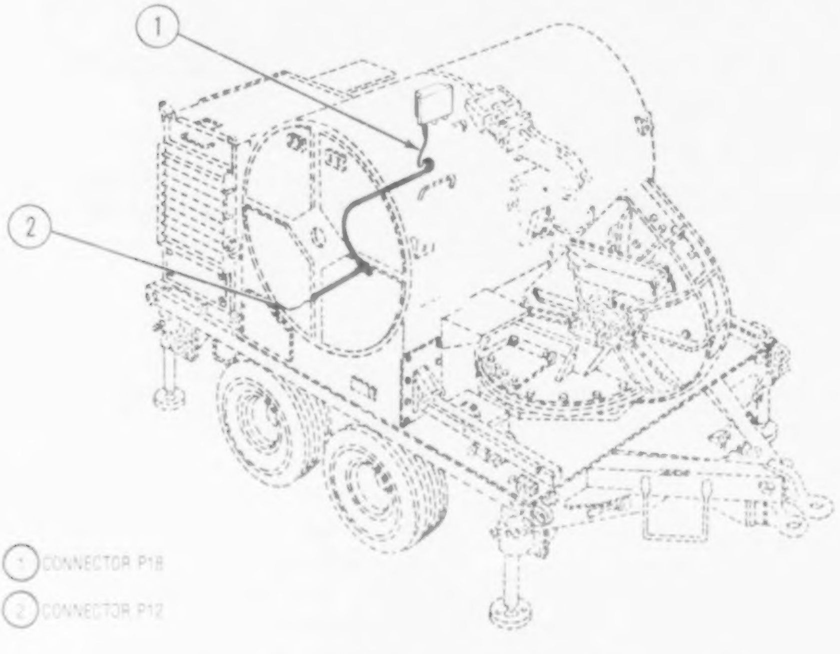
Close Right Magazine Access Doors. (See TM 9-1095-205-10.)
Lock Right Magazine Drive Sprocket Locking Cam. (See TM 9-1095-205-10.)
Install Right Infeed Chute Assembly. (See TM 9-1095-205-20.)
Install Right Side Guard And Hinged Side Guard. (See TM 9-1095-205-20.)
Install Right Mud Guard Lid And Catch. (See TM 9-1095-205-20.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION — Continued

E. CABLE ASSEMBLY P12 REMOVAL

Use the following Cable Assembly P12 Locator to find the P12 and P18 connectors.



Cable Assembly P12 Locator

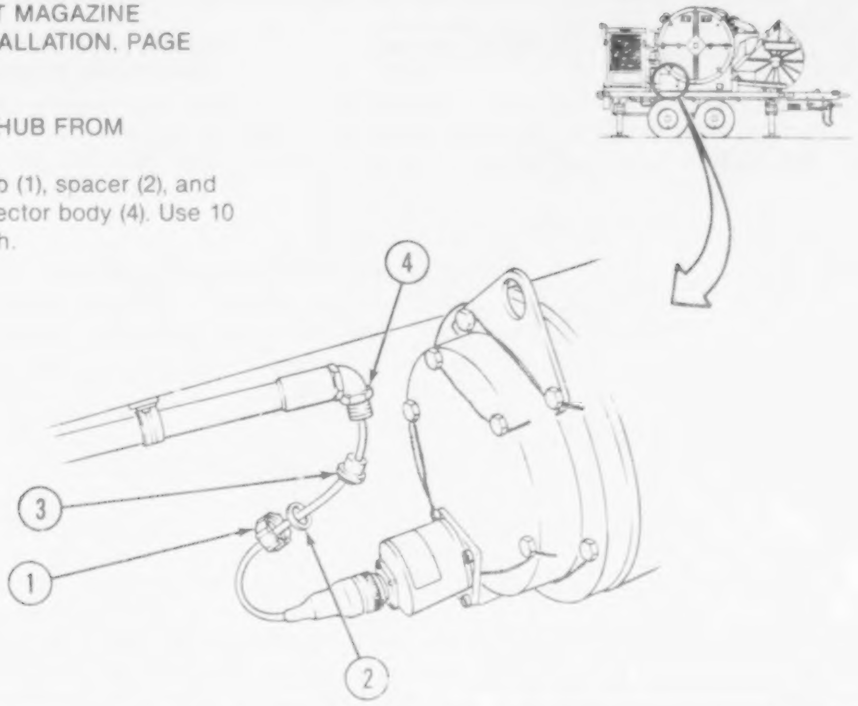
NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Engine Hinged Panel. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)

1. REMOVE CONNECTOR P18 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-56.)

2. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (1), spacer (2), and bushing (3) from connector body (4). Use 10 inch adjustable wrench.

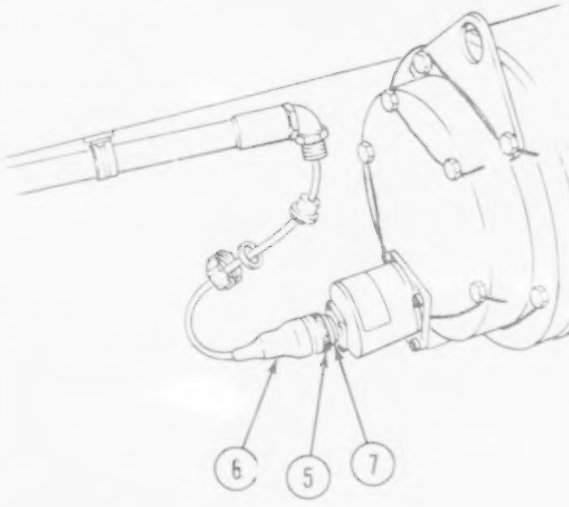


---

3. TURN CONNECTOR SLEEVE (5), AND DISCONNECT CONNECTOR P12 (6) FROM RECEPTACLE J12 (7).

4. REMOVE CONDUIT FITTING COVER FROM CONDUIT TEE. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

5. REMOVE CABLE ASSEMBLY P12 FROM CONDUIT BETWEEN RIGHT MAGAZINE PULSE GENERATOR AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



GO TO NEXT PAGE

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION — Continued

F. CABLE ASSEMBLY P12 INSTALLATION

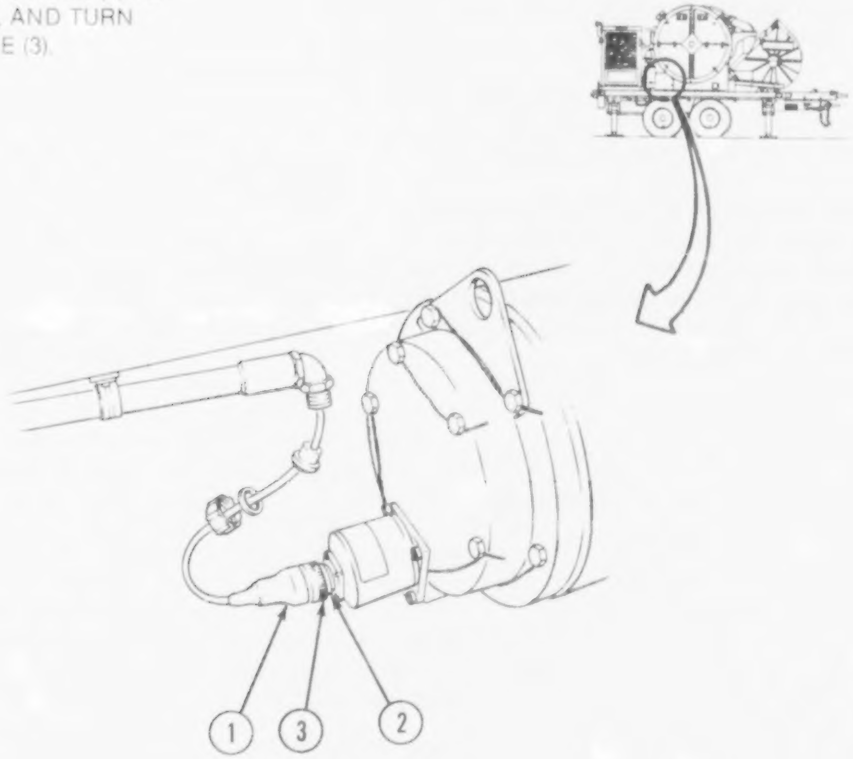
1. PERFORM CABLE ASSEMBLY P12 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY P12 WIRE DESTINATION LIST.)

CABLE ASSEMBLY P12 WIRE DESTINATION LIST

P12 Contact	Wire No.	P18 Destination Contact
A	2	U
B	17	e
C	66	i
. . .	Shield	h
D	. . .	. . .
E	. . .	. . .
F	. . .	. . .

2. INSTALL CABLE ASSEMBLY P12 IN CONDUIT BETWEEN RIGHT MAGAZINE PULSE GENERATOR AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P12 LOCATOR, PAGE 20-64.)

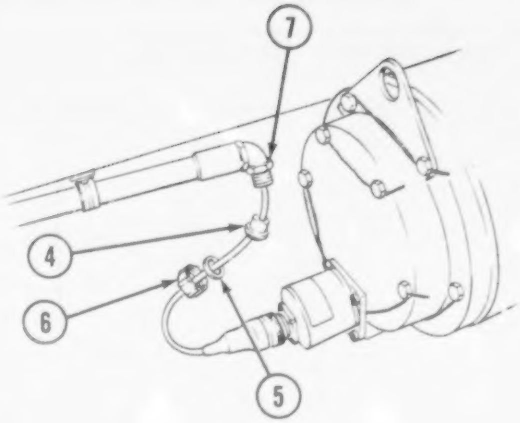
3. CONNECT CONNECTOR P12 (1) TO RECEPTACLE J12 (2), AND TURN CONNECTOR SLEEVE (3).



4. INSTALL CONNECTOR HUB ON CONNECTOR BODY
   - Install bushing (4), spacer (5), and connector hub (6) on connector body (7). Use 10 inch adjustable wrench.

5. INSTALL CONDUIT FITTING COVER ON CONDUIT TEE. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

6. INSTALL NEW CONNECTOR P18 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-57.)



NOTE

FOLLOW-ON MAINTENANCE:

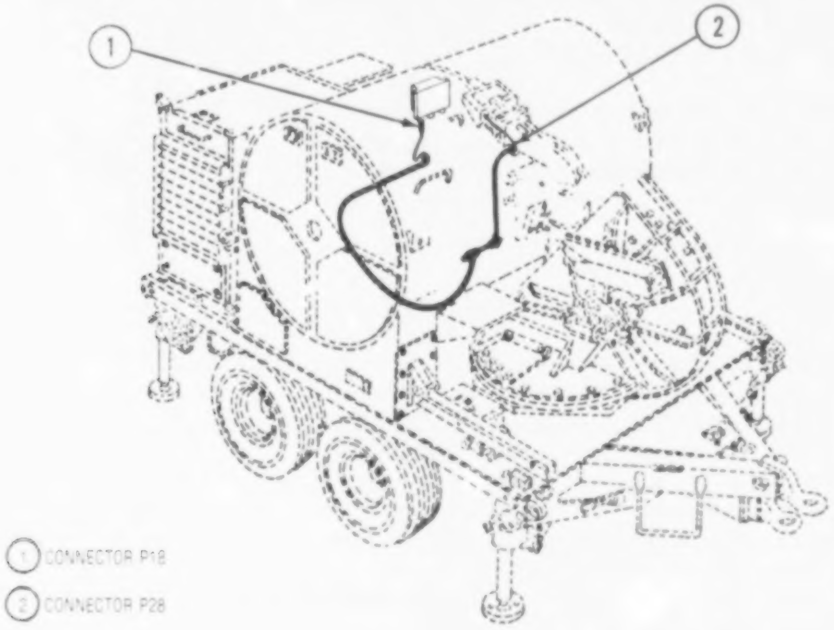
Install Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Engine Fixed Panel. (See TM 9-1095-205-20.)
Install Engine Hinged Panel. (See TM 9-1095-205-20.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION — Continued

G. CABLE ASSEMBLY P28 REMOVAL

Use the following Cable Assembly P28 Locator to find the P28 and P18 connectors.



Cable Assembly P28 Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Engine Hinged Panel. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)

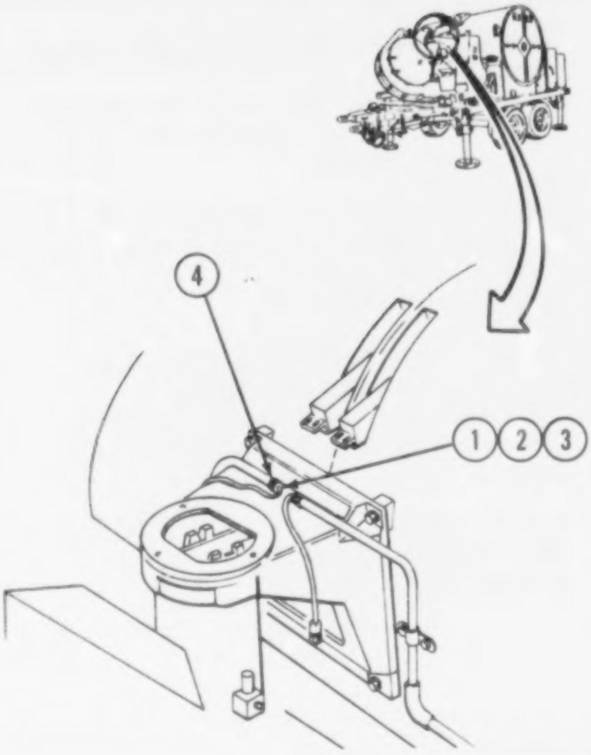
1. REMOVE CONNECTOR P18 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-56.)

2. REMOVE TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES FROM LAUNCHER ASSEMBLY. (SEE TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES, PAGE 3-3.)

3. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEES AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

4. REMOVE CONNECTOR HUB FROM CONNECTOR BODY.
   - Remove connector hub (1), spacer (2), and bushing (3) from connector body (4). Use 10 inch adjustable wrench.

5. REMOVE CABLE ASSEMBLY P28 FROM CONDUIT BETWEEN TWIN DROP CHUTE ASSEMBLY AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



H. CABLE ASSEMBLY P28 INSTALLATION

1. PERFORM CABLE ASSEMBLY P28 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY P28 WIRE DESTINATION LIST.)

CABLE ASSEMBLY P28 WIRE DESTINATION LIST

P28 Contact	Wire No.	P18 Destination Contact
A	. . .	V
C	. . .	C
E	. . .	B
D	2	k
B	54	j
F	64	a
. . .	Shield	b

2. INSTALL CABLE ASSEMBLY P28 IN CONDUIT TO JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY P28 LOCATOR, PAGE 20-68.)

GO TO NEXT PAGE

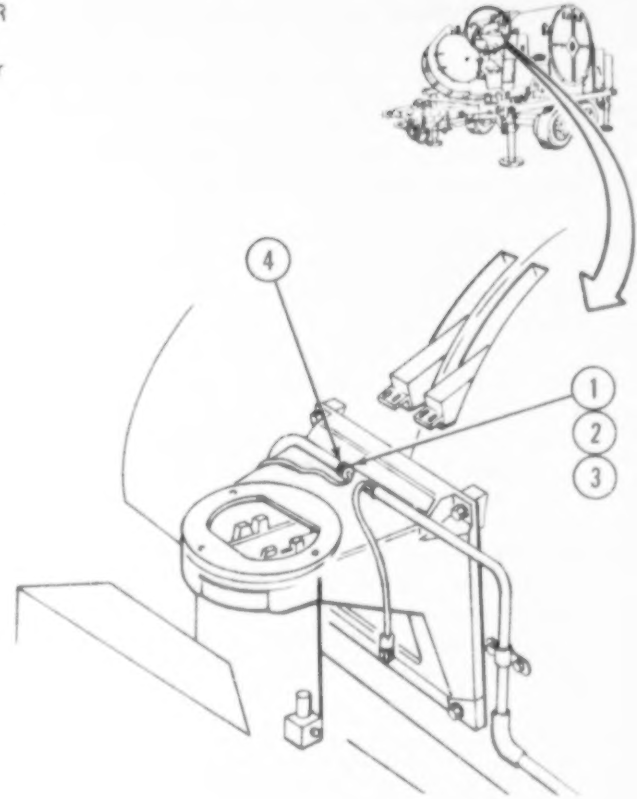
H. CABLE ASSEMBLY P28 INSTALLATION — Continued

3. INSTALL CONNECTOR HUB ON CONNECTOR BODY.
   - Install bushing (1), spacer (2), and connector hub (3) on connector body (4). Use 10 inch adjustable wrench.

4. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEES AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

5. INSTALL TWIST CHUTE AND TWIN DROP CHUTE ASSEMBLIES ON LAUNCHER ASSEMBLY. (SEE TWIST CHUTE AND TWIN DROP ASSEMBLIES INSTALLATION, PAGE 3-3.)

6. INSTALL CONNECTOR P18 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-57.)



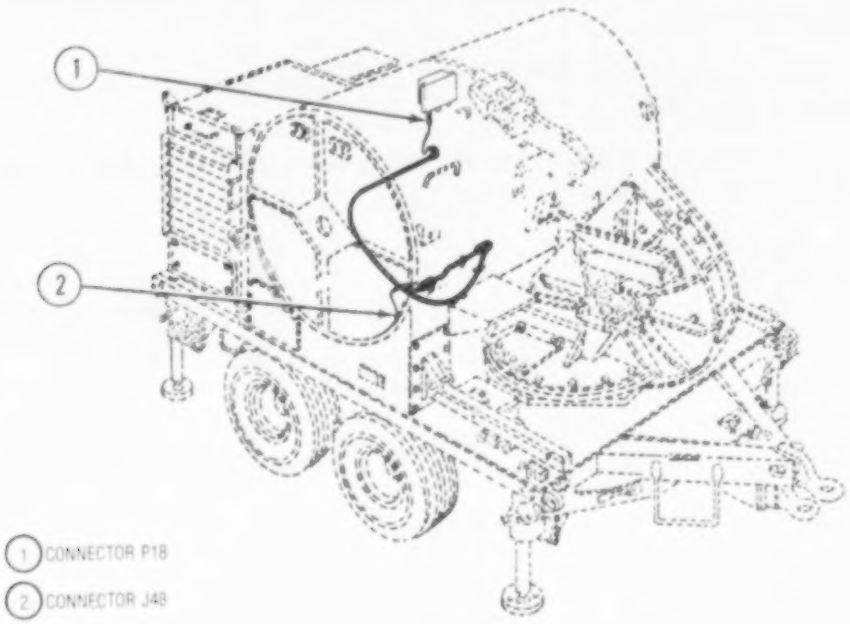
NOTE

FOLLOW-ON MAINTENANCE:

Install Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Engine Fixed Panel. (See TM 9-1095-205-20.)
Install Engine Hinged Panel. (See TM 9-1095-205-20.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

I. CABLE ASSEMBLY J48 REMOVAL

Use the following Cable Assembly J48 Locator to find the J48 and P18 connectors.



Cable Assembly J48 Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Engine Hinged Panel. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Open Right Magazine Access Doors. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

I. CABLE ASSEMBLY J48 REMOVAL — Continued

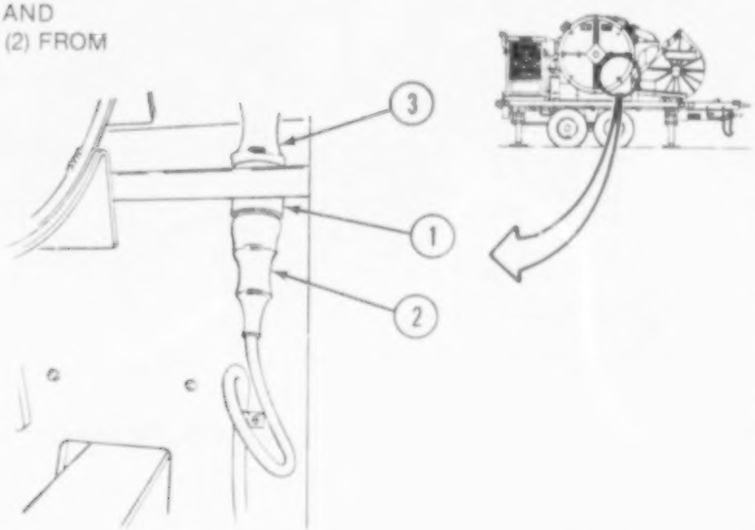
1. REMOVE CONNECTOR P18 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-56.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEES. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

3. REMOVE COVER FROM PUSHBUTTON CONTROL STATION. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-76.)

4. REMOVE PUSHBUTTON CONTROL STATION SWITCH FROM PUSHBUTTON CONTROL STATION. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-76.)

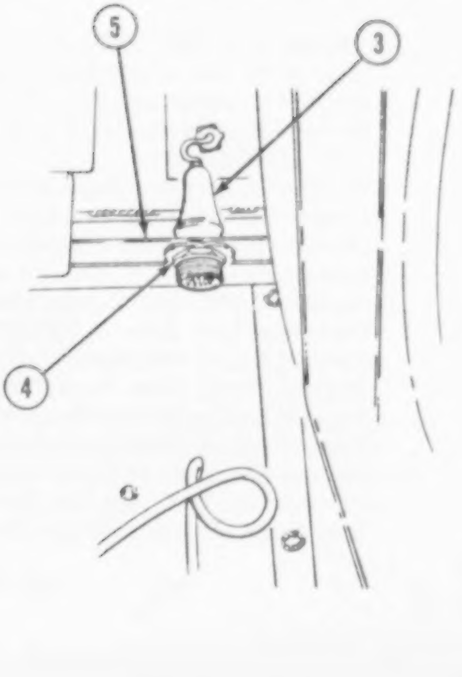
5. TURN CONNECTOR SLEEVE (1), AND DISCONNECT CONNECTOR P48 (2) FROM RECEPTACLE J48 (3).



---

6. REMOVE RECEPTACLE J48 FROM MOUNTING FLANGE.
   - Remove nut (4) and Receptacle J48 (3) from mounting flange (5). Use slip joint pliers.

7. REMOVE CABLE ASSEMBLY J48 FROM CONDUIT. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



J. CABLE ASSEMBLY J48 INSTALLATION

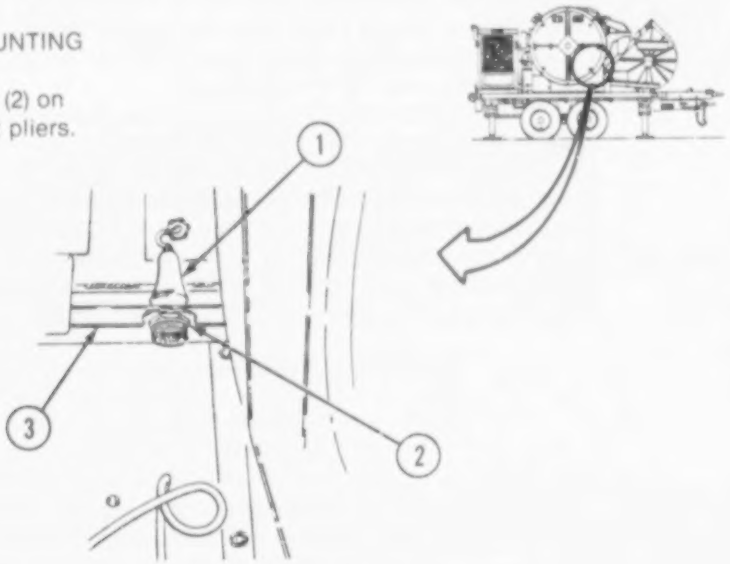
1. PERFORM CABLE ASSEMBLY J48 IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING CABLE ASSEMBLY J48 WIRE DESTINATION LIST.)

CABLE ASSEMBLY J48 WIRE DESTINATION LIST

J48 Contact	Wire No.	P18 Destination Contact
B	2	A
A	54	T
C	58	S
N	Shield	d
E	2	R
D	54	P
F	59	N
P	Shield	c
H	2	M
G	54	L
J	63	K
R	Shield	Z
K	...	...
L	...	...
M	...	...
S	...	...

2. INSTALL CABLE ASSEMBLY J48 IN CONDUIT. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND CABLE ASSEMBLY J48 LOCATOR, PAGE 20-71.)

3. INSTALL RECEPTACLE J48 ON MOUNTING FLANGE.
   - Install Receptacle J48 (1) and nut (2) on mounting flange (3). Use slip joint pliers.



GO TO NEXT PAGE

J. CABLE ASSEMBLY J48 INSTALLATION — Continued

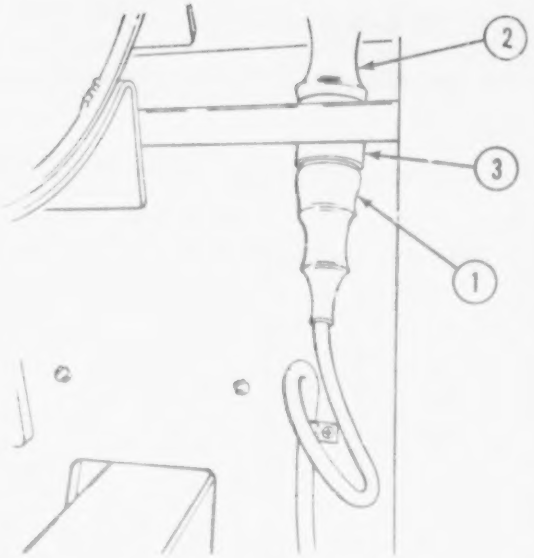
4. CONNECT CONNECTOR P48 (1) TO RECEPTACLE J48 (2), AND TURN CONNECTOR SLEEVE (3).

5. INSTALL PUSHBUTTON CONTROL STATION SWITCH IN PUSHBUTTON CONTROL STATION. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-78.)

6. INSTALL COVER ON PUSHBUTTON CONTROL STATION. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-79.)

7. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEES. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

8. INSTALL CONNECTOR P48 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-57.)



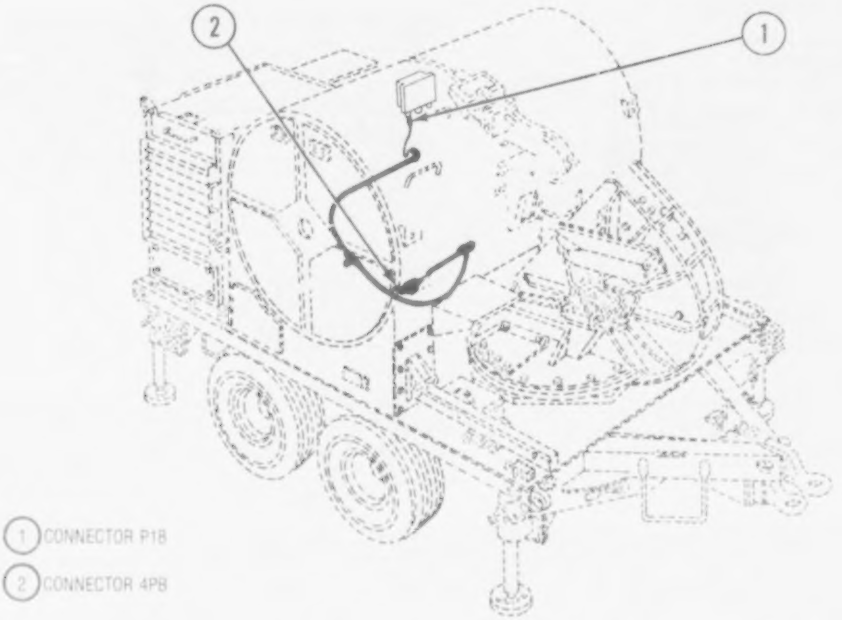
NOTE

FOLLOW-ON MAINTENANCE:

Install Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Engine Fixed Panel. (See TM 9-1095-205-20.)
Install Engine Hinged Panel. (See TM 9-1095-205-20.)
Close Right Magazine Access Doors. (See TM 9-1095-205-10.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

K. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB REMOVAL

Use the following Pushbutton Control Station Cable Assembly and Switch 4PB Locator to find the P18 and 4PB connectors.



Pushbutton Control Station Cable Assembly and Switch 4PB Locator

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Engine Hinged Panel. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)

GO TO NEXT PAGE

K. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB REMOVAL — Continued

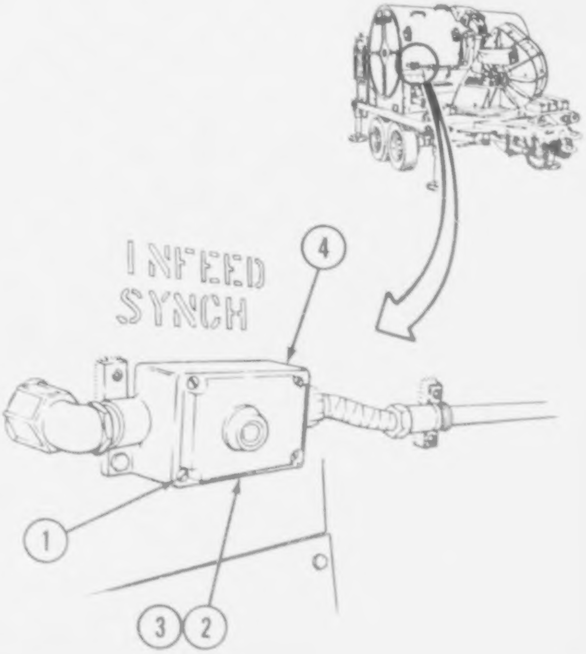
1. REMOVE CONNECTOR P18 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-56.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEES. (SEE TYPICAL CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

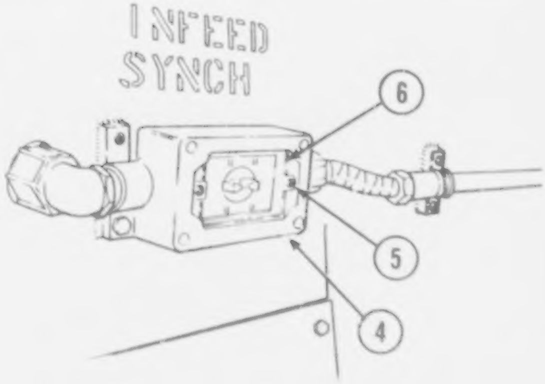
WARNING

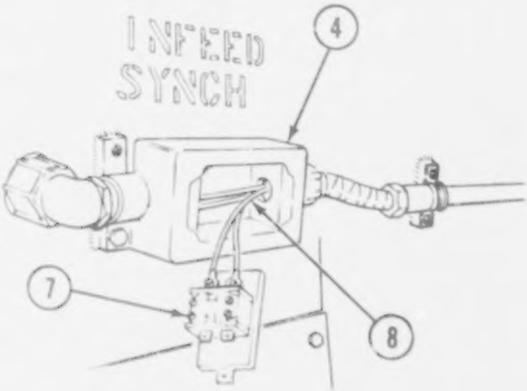
Cleaning solvent can explode and can burn. Read warning on front page of this manual.

3. REMOVE COVER FROM PUSHBUTTON CONTROL STATION.
   - Remove four screws (1), cover (2), and gasket (3) from pushbutton control station (4). Use 3/8 inch flat tip screwdriver. Discard gasket.
   - Clean mating surfaces of pushbutton control station (4) and cover (2). Use putty knife, solvent, and rags.



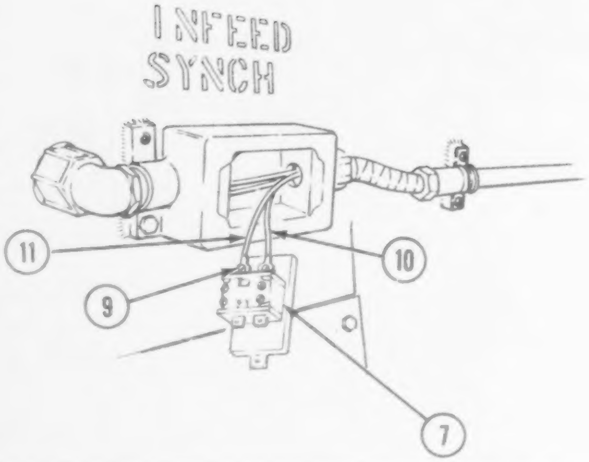
4. REMOVE PUSHBUTTON CONTROL STATION SWITCH FROM PUSHBUTTON CONTROL STATION.
   - Remove two screws (5), switch plate (6), and switch (7) with cable assembly (8) from pushbutton control station (4). Use 1/4 inch flat tip screwdriver.





5. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY FROM PUSHBUTTON CONTROL STATION SWITCH.
   - Remove two screws (9), Lead 2 (10), and Lead 94 (11) from switch (7). Use 1/4 inch flat tip screwdriver.

6. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY FROM CONDUIT BETWEEN PUSHBUTTON CONTROL STATION AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY REMOVAL FROM CONDUIT, PAGE 16-3.)



L. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB INSTALLATION

1. PERFORM PUSHBUTTON CONTROL STATION CABLE ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY IDENTIFICATION AND CONTINUITY CHECK, PAGE 16-3, AND FOLLOWING PUSHBUTTON CONTROL STATION CABLE ASSEMBLY WIRE DESTINATION LIST.)

PUSHBUTTON CONTROL STATION CABLE ASSEMBLY WIRE DESTINATION LIST

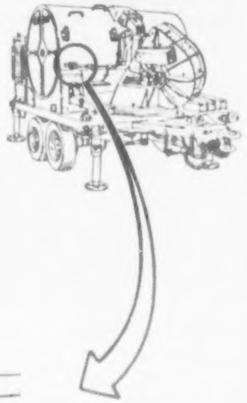
Switch 4PB Contact	Wire No.	P18 Destination Contact
94	94	X
2	2	Y

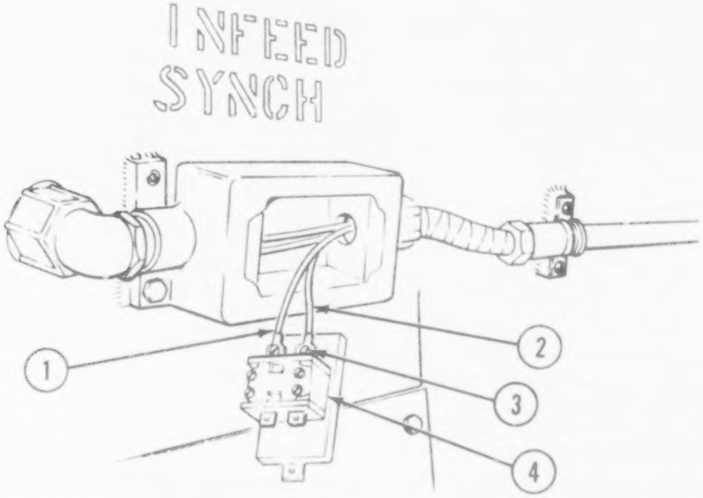
2. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY IN CONDUIT BETWEEN PUSHBUTTON CONTROL STATION AND JUNCTION BOX JB3. (SEE TYPICAL CABLE, WIRE BUNDLE, OR LEAD ASSEMBLY INSTALLATION IN CONDUIT, PAGE 16-3, AND PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB LOCATOR, PAGE 20-75.)

GO TO NEXT PAGE

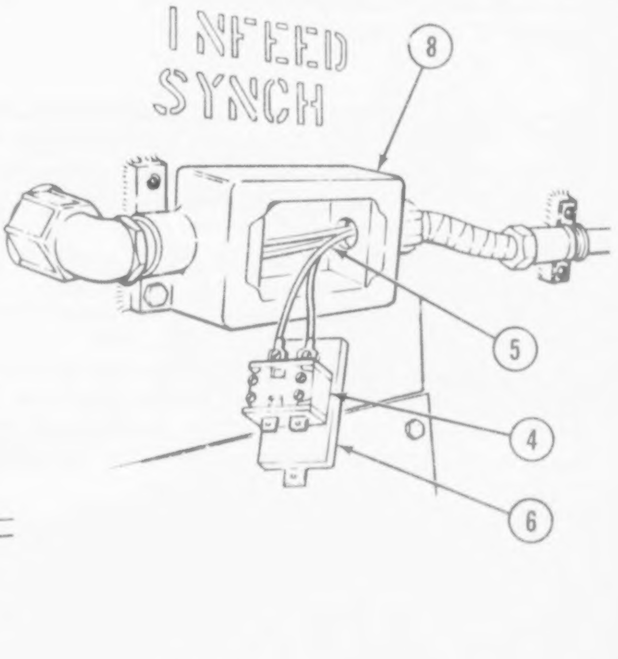
L. PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB INSTALLATION—Continued

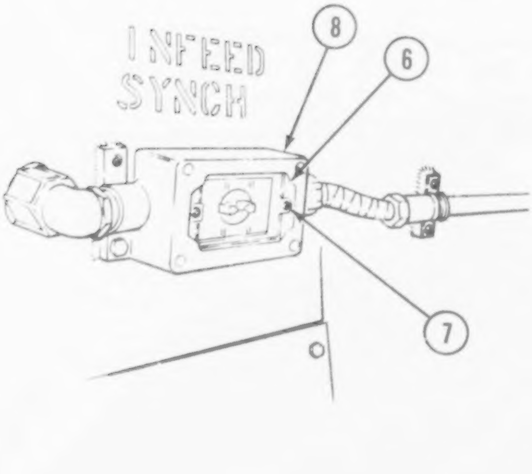
3. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY ON PUSHBUTTON CONTROL STATION SWITCH.
   - Install Lead 94 (1), Lead 2 (2), and two screws (3) on switch (4). Use 1/4 inch flat tip screwdriver.





4. INSTALL PUSHBUTTON CONTROL STATION SWITCH IN PUSHBUTTON CONTROL STATION.
   - Install switch (4) with cable assembly (5), switch plate (6), and two screws (7) on pushbutton control station (8). Use 1/4 inch flat tip screwdriver.

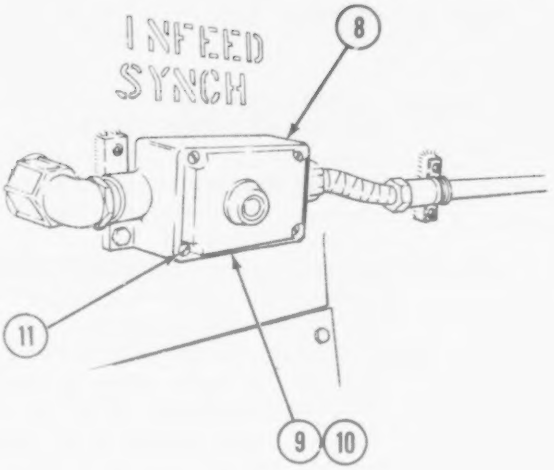




5. INSTALL COVER ON PUSHBUTTON CONTROL STATION.
   - Install new gasket (9), cover (10), and four screws (11) on pushbutton control station (8). Use 3/8 inch flat tip screwdriver.

6. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEES. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

7. INSTALL CONNECTOR P18 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-57.)



NOTE

FOLLOW-ON MAINTENANCE:

Install Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Engine Fixed Panel. (See TM 9-1095-205-20.)
Install Engine Hinged Panel. (See TM 9-1095-205-20.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-6 RIGHT MAGAZINE CONTROL WIRING INSTALLATION — Continued

M. RIGHT MAGAZINE CONTROL WIRING BUNDLE REMOVAL

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Engine Hinged Panel. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)

1. REMOVE CONNECTOR P18 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-56.)

2. REMOVE CONDUIT FITTING COVERS FROM CONDUIT TEES AND PULLING ELBOW. (SEE TYPICA CONDUIT FITTING COVER REMOVAL, PAGE 16-3.)

3. REMOVE RIGHT MAGAZINE INTERNAL WIRING HARNESS FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-61.)

4. REMOVE CABLE ASSEMBLY P12 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-64.)

5. REMOVE CABLE ASSEMBLY P28 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-68.)

6. REMOVE CABLE ASSEMBLY J48 FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-71.)

7. REMOVE PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB FROM DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-75.)

N. RIGHT MAGAZINE CONTROL WIRING BUNDLE INSTALLATION

1. INSTALL CABLE ASSEMBLY J48 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-73.)

2. INSTALL PUSHBUTTON CONTROL STATION CABLE ASSEMBLY AND SWITCH 4PB ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-77.)

3. INSTALL CABLE ASSEMBLY P28 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-69.)

4. INSTALL CABLE ASSEMBLY P12 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-66.)

5. INSTALL RIGHT MAGAZINE INTERNAL WIRING HARNESS ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-62.)

6. INSTALL CONDUIT FITTING COVERS ON CONDUIT TEES AND PULLING ELBOW. (SEE TYPICAL CONDUIT FITTING COVER INSTALLATION, PAGE 16-3.)

7. INSTALL CONNECTOR P18 ON DISPENSER. (SEE RIGHT MAGAZINE CONTROL WIRING INSTALLATION, PAGE 20-57.)

NOTE

FOLLOW-ON MAINTENANCE:
Install Fuel Tank. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Fixed Panel Support. (See TM 9-1095-205-20.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Engine Fixed Panel. (See TM 9-1095-205-20.)
Install Engine Hinged Panel. (See TM 9-1095-205-20.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

END OF TASK

20-7 RIGHT MAGAZINE CONDUIT

DESCRIPTION

This task covers:
- A. REMOVAL (p 20-85)
- B. INSTALLATION (p 20-95)

INITIAL SETUP

Tools and Special Tools:

- General mechanic's tool kit
  - 5180-00-177-7033:
    - No. 2 cross tip screwdriver
    - 7/16 inch open end wrench
- 10 inch pipe wrench (2) 5120-00-277-1485
- 12 inch adjustable wrench (2) 5120-00-264-3796
- 6 inch strap wrench 5120-00-262-8491
- Slip joint pliers 5120-00-278-0351

Materials/Parts:

- Sealing compound, Item 25, Appendix B
- Sealing O-ring (2) 5330-00-588-0892
- Conduit lock nut 5975-01-058-3838
- Liquidtight connector (2) 5975-00-983-9229
- Lock washer (12) 5310-00-559-0070

Personnel Required:

- Electrical repairer
- Helper

References:

- TM 9-1095-205-10
- TM 9-1095-205-20
- FUEL TANK ASSEMBLY, Page 13-3
- RIGHT MAGAZINE CONTROL WIRING INSTALLATION, Page 20-55

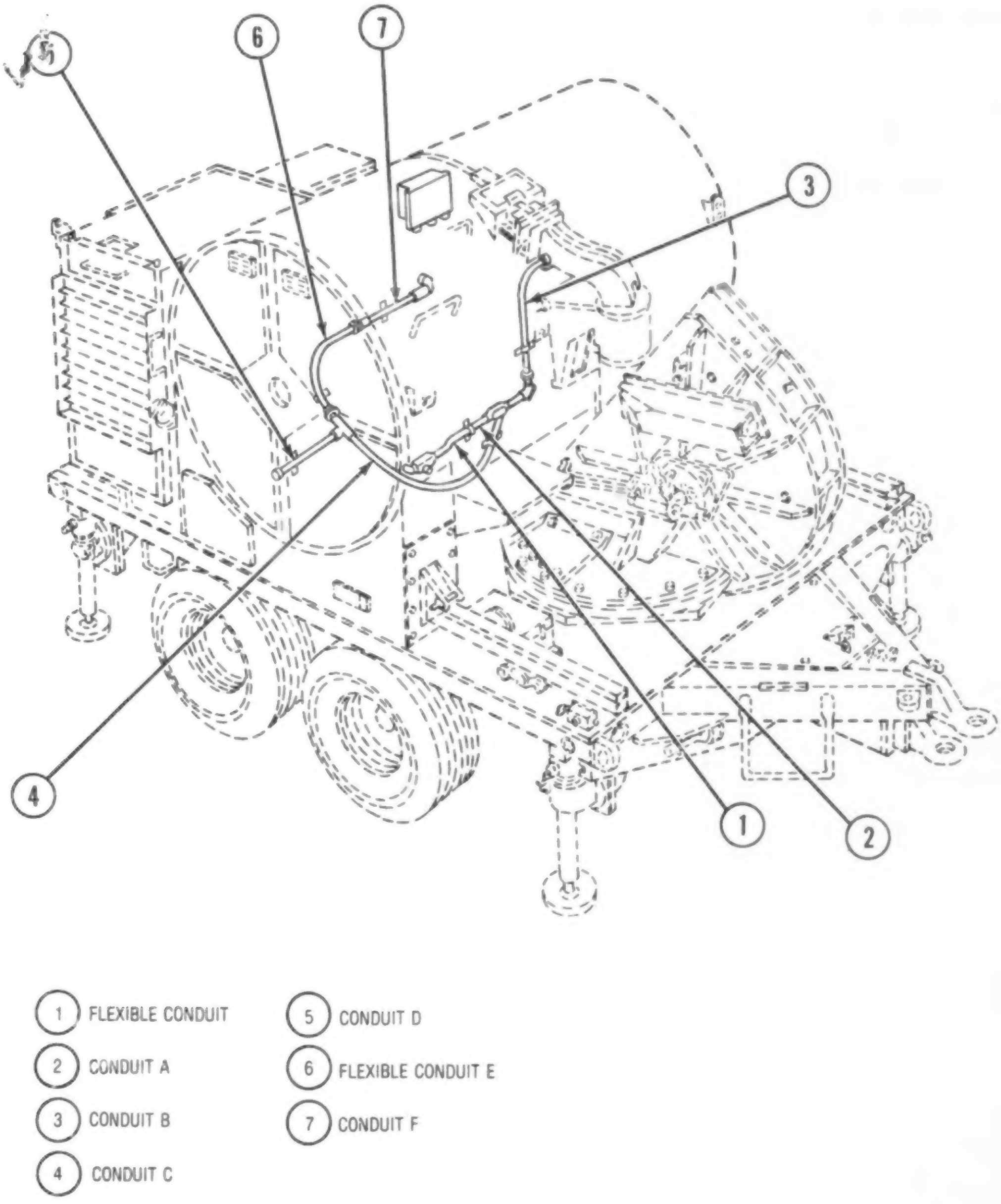
OVERVIEW

All pipe thread fittings and threaded rigid conduits (Conduits A, B, C, D, and F) require sealant. Clean conduits and fittings. Apply sealing compound to all male pipe threads.

GO TO NEXT PAGE

OVERVIEW — Continued

Use the following Right Magazine Conduit Locator to find parts of the right magazine conduit.



Right Magazine Conduit Locator

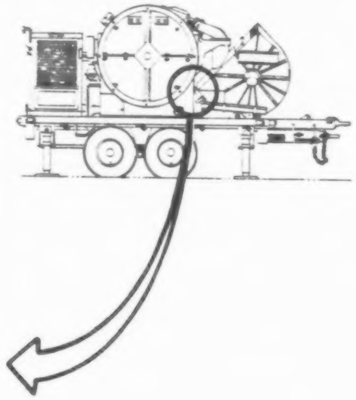
A. REMOVAL

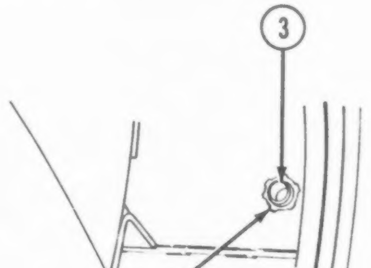
NOTE

PRELIMINARY PROCEDURES:

Open Right Magazine Access Doors. (See TM 9-1095-205-10.)
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Drain Fuel Tank. (See TM 9-1095-205-20.)
Remove Hinged Panel. (See TM 9-1095-205-20.)
Remove Fixed Panel. (See TM 9-1095-205-20.)
Remove Fixed Panel Support. (See TM 9-1095-205-20.)
Remove Engine Muffler. (See TM 9-1095-205-20.)
Remove Engine Assembly Top. (See TM 9-1095-205-20.)
Remove Fuel Tank Assembly. (See Fuel Tank Assembly, Page 13-3.)
Open Manual Bypass Valve. (See TM 9-1095-205-10.)
Swing Launcher To Far Left. (See TM 9-1095-205-10.)
Close Manual Bypass Valve. (See TM 9-1095-205-10.)
Remove Right Magazine Control Wiring Bundle. (See Right Magazine Control Wiring Installation, Page 20-55.)

1. REMOVE CONDUIT LOCK NUT FROM CONDUIT NIPPLE.
   - Remove conduit lock nut (1) and sealing O-ring (2) from conduit nipple (3). Use slip joint pliers. Discard lock nut and sealing O-ring.





GO TO NEXT PAGE

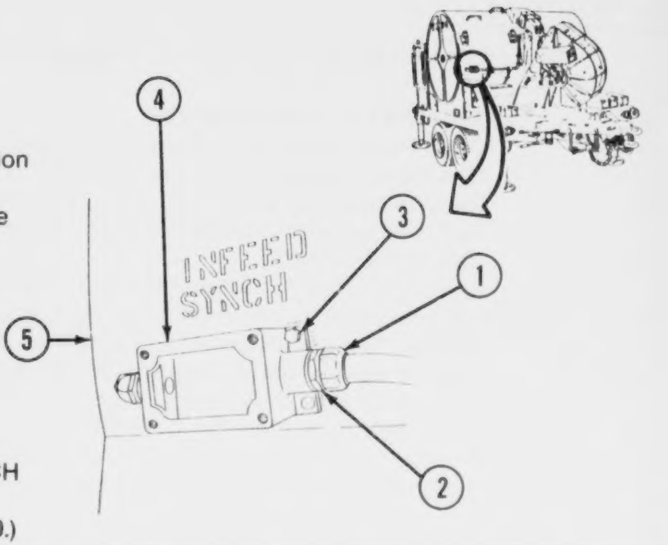
A. REMOVAL — Continued

2. REMOVE PUSHBUTTON CONTROL STATION FROM MAGAZINE.
   - Loosen connector hub (1) on connector body (2). Use 12 inch adjustable wrench.
   - Remove two screws (3) from control station (4). Use 7/16 inch open end wrench.
   - Remove control station (4) from magazine (5).

NOTE

Do not remove name plate unless pushbutton control station is being replaced.

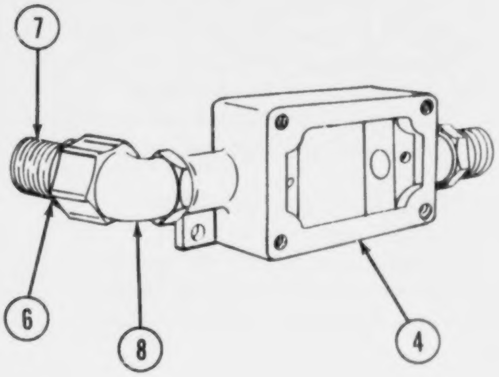
3. REMOVE LOAD ADVANCE/UNLOAD SWITCH NAME PLATE FROM PUSHBUTTON CONTROL STATION. (SEE TM 9-1095-205-20.)



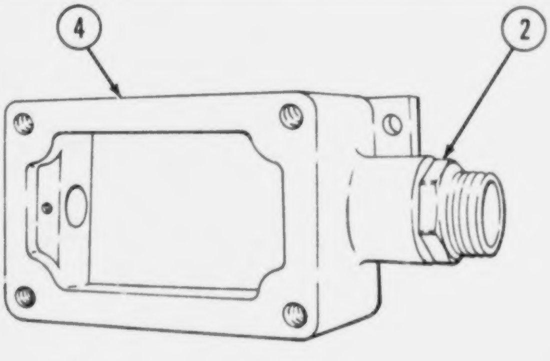
NOTE

Do not remove fittings unless required for maintenance.

4. REMOVE FITTINGS FROM PUSHBUTTON CONTROL STATION.
   - Remove sealing O-ring (6) from conduit nipple (7). Discard sealing O-ring.
   - Remove conduit nipple (7) from elbow (8). Use 10 inch pipe wrench.
   - Remove elbow (8) from control station (4). Use 12 inch adjustable wrench.



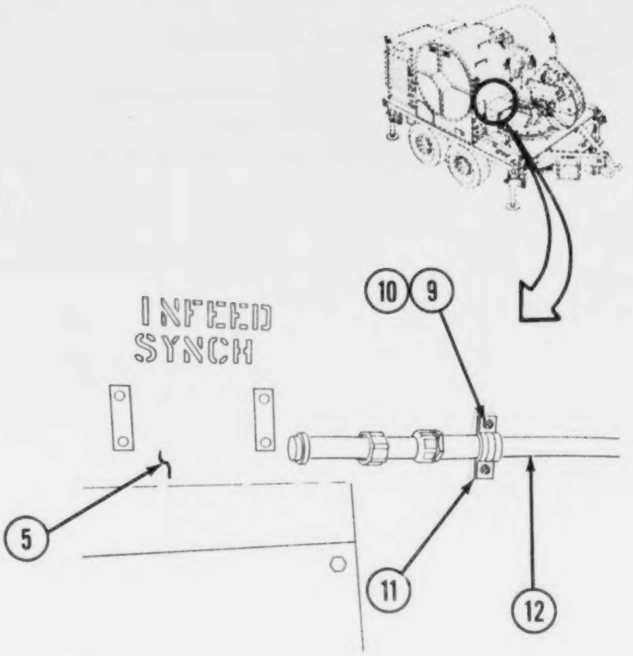
- Remove connector body (2) from control station (4). Use 12 inch adjustable wrench.



NOTE

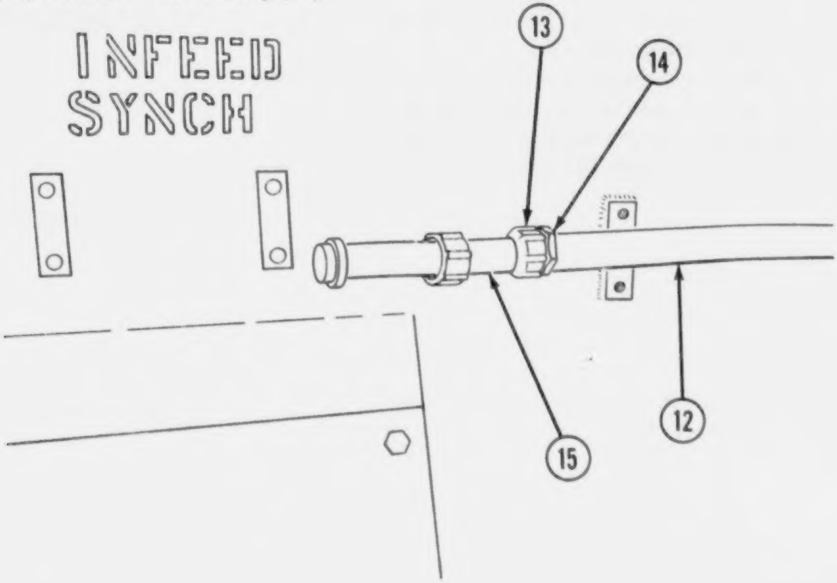
Six conduit straps are removed the same way. Step 5 shows one strap on Conduit A.

5. REMOVE SIX CONDUIT STRAPS FROM RIGHT MAGAZINE.
   - Remove two screws (9), lock washers (10), and conduit strap (11) from Conduit A (12) and magazine (5). Use No. 2 cross tip screwdriver. Discard lock washers.
   - Repeat above removal step for other five conduit straps.



---

6. REMOVE FLEXIBLE CONDUIT FROM CONDUIT A.
   - Remove connector hub (13) from connector body (14) of Conduit A (12). Use 12 inch adjustable wrench.
   - Remove flexible conduit (15) from connector body (14).

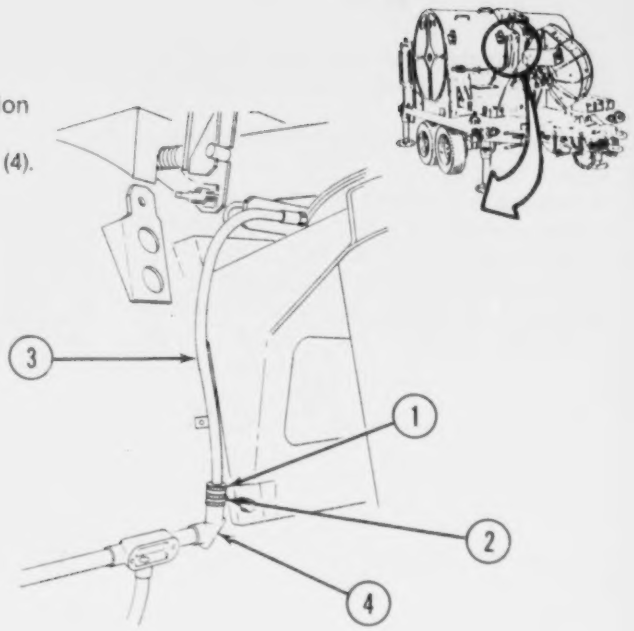


GO TO NEXT PAGE

best copy available

A. REMOVAL — Continued

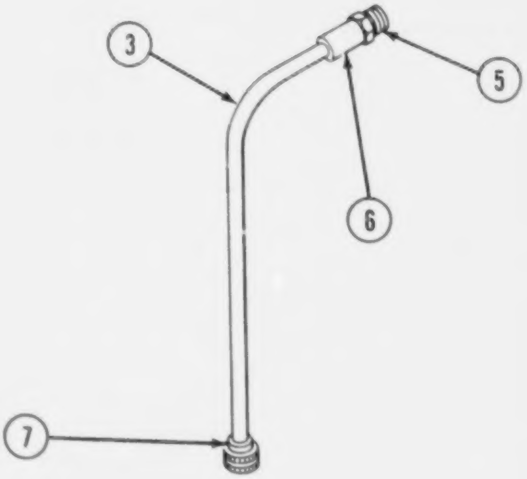
7. REMOVE CONDUIT B FROM CONDUIT PULLING ELBOW.
   - Remove conduit union sleeve (1) from union male end (2). Use slip joint pliers.
   - Remove Conduit B (3) from pulling elbow (4).



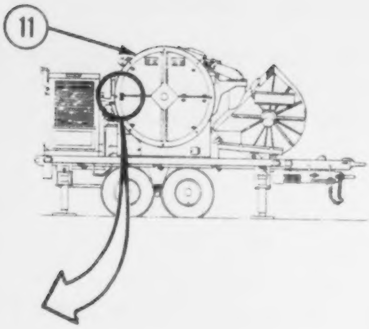
NOTE

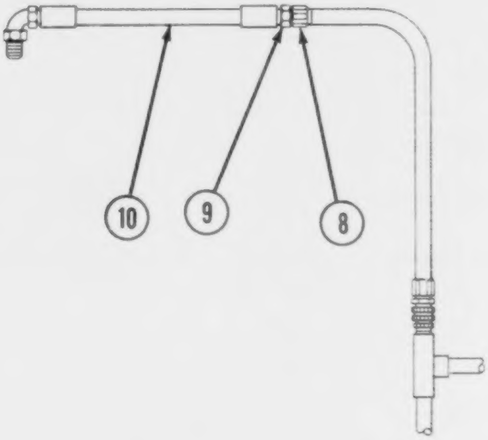
Do not remove conduit fittings unless required for maintenance.

8. REMOVE FITTINGS FROM CONDUIT B.
   - Remove connector body (5) from conduit coupling (6). Use 12 inch adjustable and 10 inch pipe wrenches.
   - Remove conduit coupling (6) from Conduit B (3). Use two 10 inch pipe wrenches.
   - Remove union female end (7) from Conduit B (3). Use two 10 inch pipe wrenches.



9. REMOVE CONDUIT F FROM MAGAZINE.
   - Remove connector hub (8) from connector body (9). Use 12 inch adjustable wrench.
   - Remove Conduit F (10) from magazine (11).

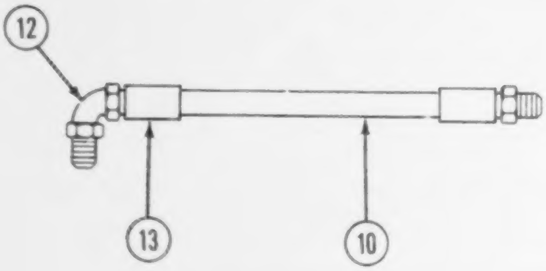




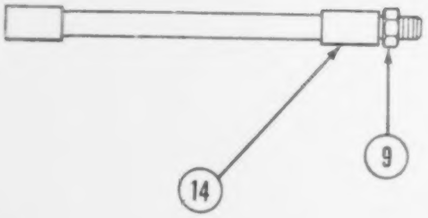
NOTE

Do not remove conduit fittings unless required for maintenance.

10. REMOVE FITTINGS FROM CONDUIT F.
    - Remove 90° elbow (12) from conduit coupling (13) of Conduit F (10). Use two 10 inch pipe wrenches.



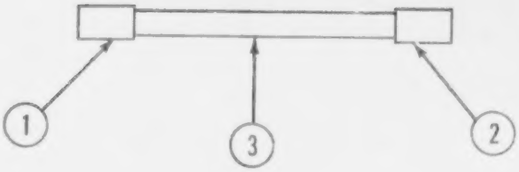
- Remove connector body (9) from conduit coupling (14). Use 12 inch adjustable and 10 inch pipe wrenches.



GO TO NEXT PAGE

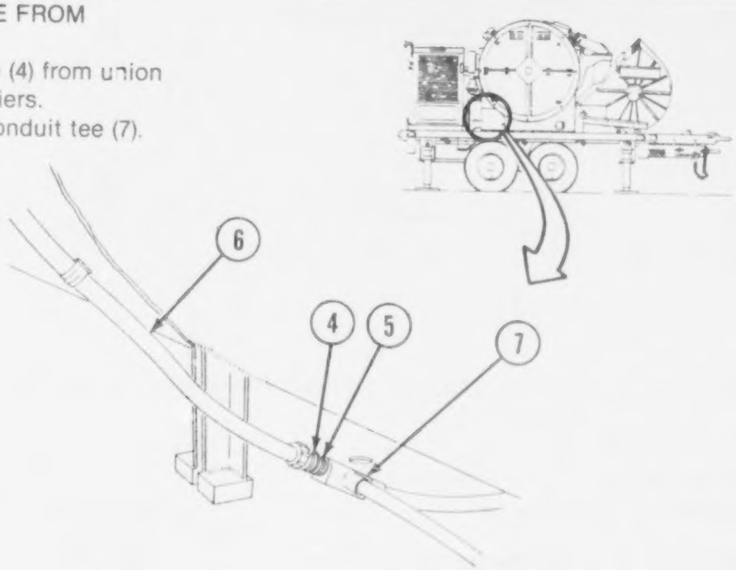
A. REMOVAL — Continued

- Remove conduit coupling (1) and conduit coupling (2) from Conduit F (3). Use two 10 inch pipe wrenches.



---

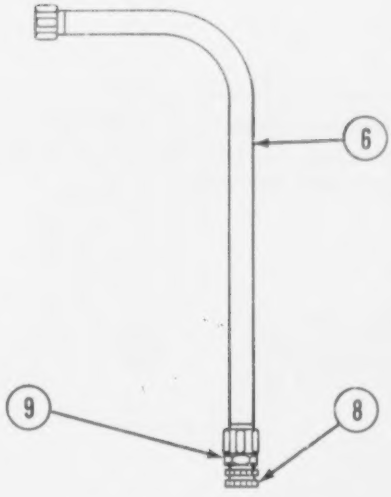
11. REMOVE FLEXIBLE CONDUIT E FROM CONDUIT TEE.
    - Remove conduit union sleeve (4) from union male end (5). Use slip joint pliers.
    - Remove Conduit E (6) from conduit tee (7).



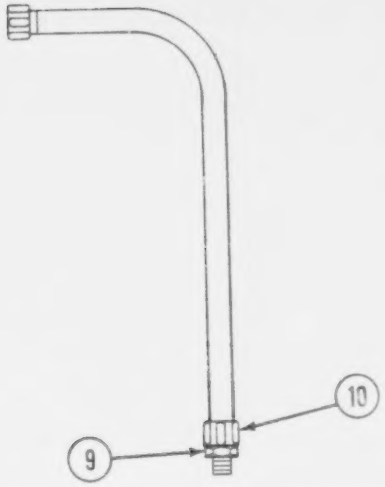
NOTE

Do not remove fittings unless required for maintenance.

12. REMOVE FITTINGS FROM FLEXIBLE CONDUIT E.
    - Remove union female end (8) from connector body (9) of Conduit E (6). Use 12 inch adjustable and 10 inch pipe wrenches.

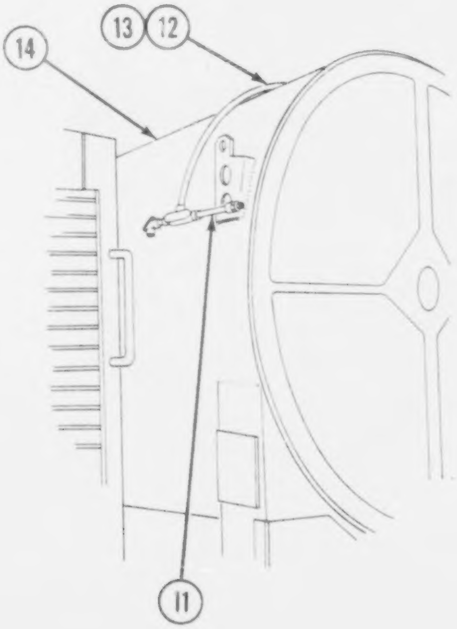


- Remove connector body (9) from connector hub (10). Use two 12 inch adjustable wrenches.



---

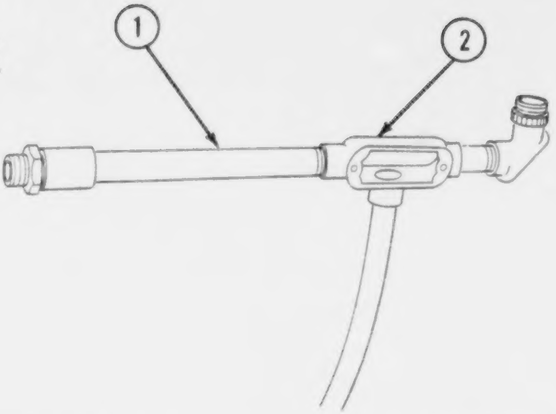
13. REMOVE CONDUITS A, D, AND C FROM MAGAZINE.
    - Slide Conduit A (11), Conduit D (12), and Conduit C (13) up and over top of magazine (14).
    - Remove Conduit A (11), Conduit D (12), and Conduit C (13) from magazine (14). Use helper.



GO TO NEXT PAGE

A. REMOVAL — Continued

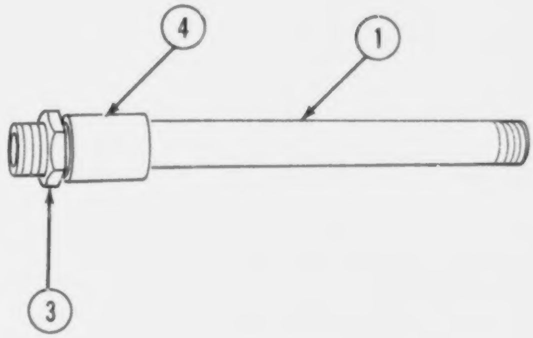
14. REMOVE CONDUIT A FROM CONDUIT TEE.
    - Remove Conduit A (1) from conduit tee (2). Use two 10 inch pipe wrenches.



NOTE

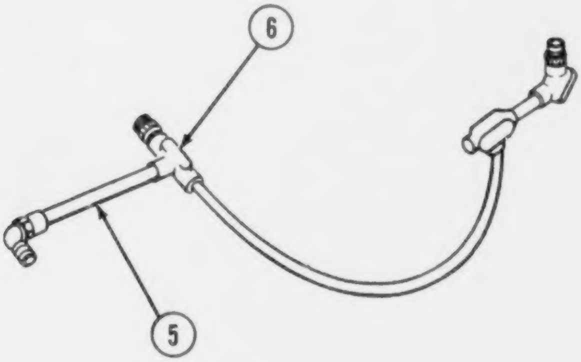
Do not remove fittings unless required for maintenance.

15. REMOVE FITTINGS FROM CONDUIT A.
    - Remove connector body (3) from Conduit A (1). Use 12 inch adjustable and 10 inch pipe wrenches.
    - Remove conduit coupling (4) from Conduit A (1). Use two 10 inch pipe wrenches.



---

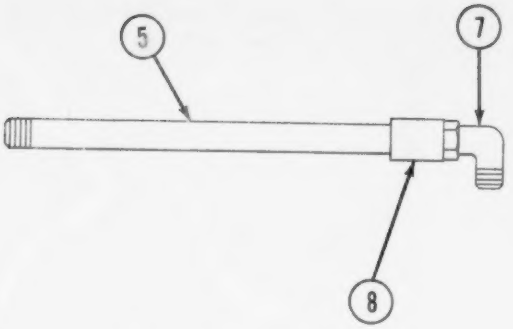
16. REMOVE CONDUIT D FROM CONDUIT TEE.
    - Remove Conduit D (5) from conduit tee (6). Use two 10 inch pipe wrenches.



NOTE

Do not remove fittings unless required for maintenance.

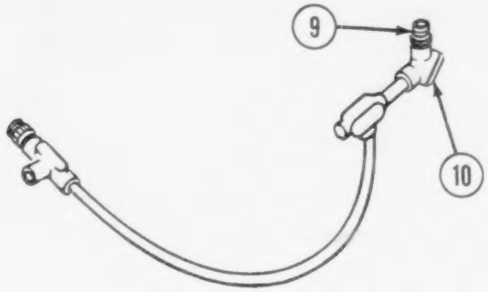
17. REMOVE FITTINGS FROM CONDUIT D.
    - Remove 90° elbow (7) from conduit coupling (8). Use two 10 inch pipe wrenches.
    - Remove conduit coupling (8) from Conduit D (5). Use two 10 inch pipe wrenches.



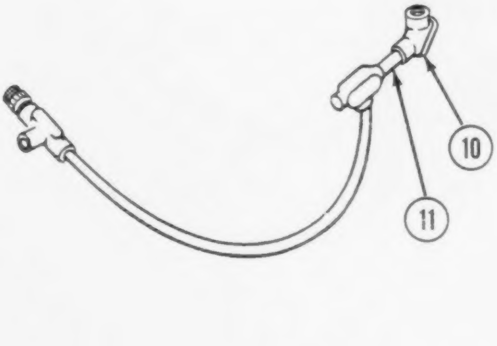
NOTE

Do not remove fittings unless required for maintenance.

18. REMOVE FITTINGS FROM CONDUIT C.
    - Remove union male end (9) from pulling elbow (10). Use two 10 inch pipe wrenches.



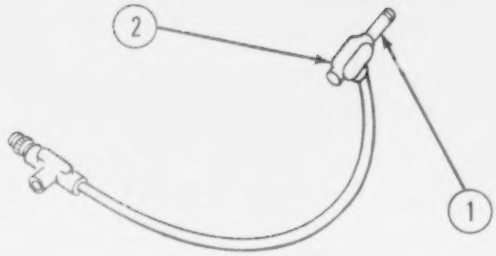
- Remove pulling elbow (10) from conduit nipple (11). Use two 10 inch pipe wrenches.



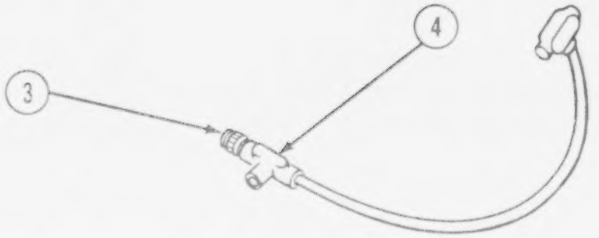
GO TO NEXT PAGE

A. REMOVAL — Continued

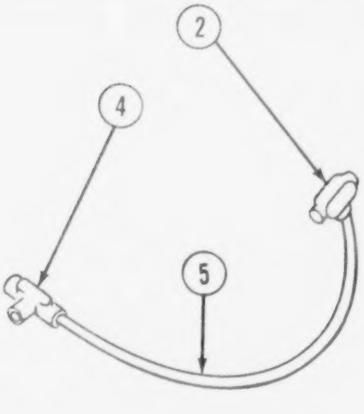
- Remove conduit nipple (1) from conduit tee (2). Use two 10 inch pipe wrenches.



- Remove union male end (3) from conduit tee (4). Use two 10 inch pipe wrenches.



- Remove conduit tee (4) and conduit tee (2) from Conduit C (5). Use two 10 inch pipe wrenches.

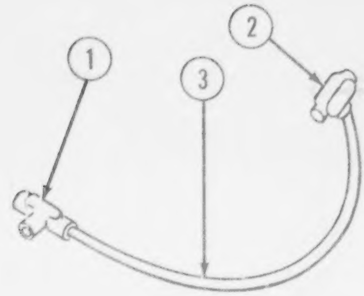


B. INSTALLATION

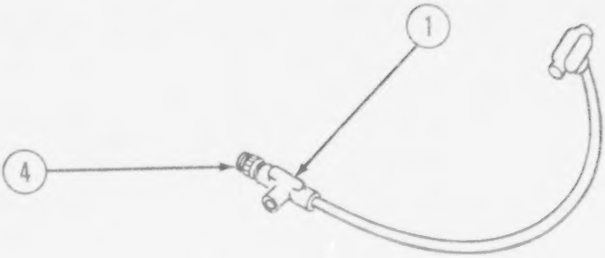
NOTE

If fittings were not removed, go to step 2.

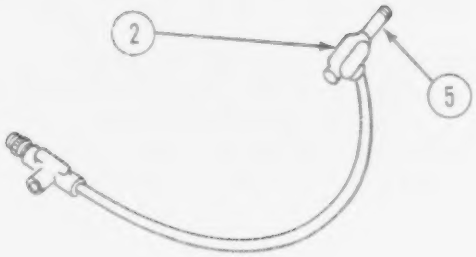
1. INSTALL FITTINGS ON CONDUIT C.
   - Install conduit tee (1) and conduit tee (2) on Conduit C (3) so openings will face away from magazine. Use two 10 inch pipe wrenches.



   - Install union male end (4) on conduit tee (1). Use two 10 inch pipe wrenches.



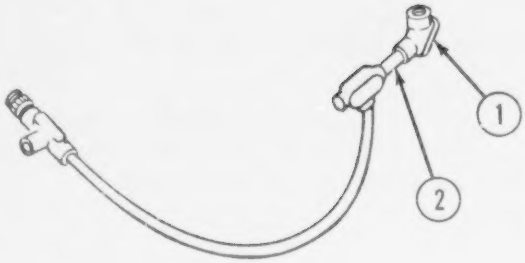
   - Install conduit nipple (5) on conduit tee (2). Use two 10 inch pipe wrenches.



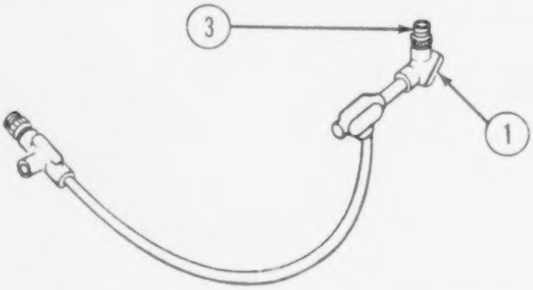
GO TO NEXT PAGE

B. INSTALLATION — Continued

- Install pulling elbow (1) on conduit nipple (2). Use two 10 inch pipe wrenches.



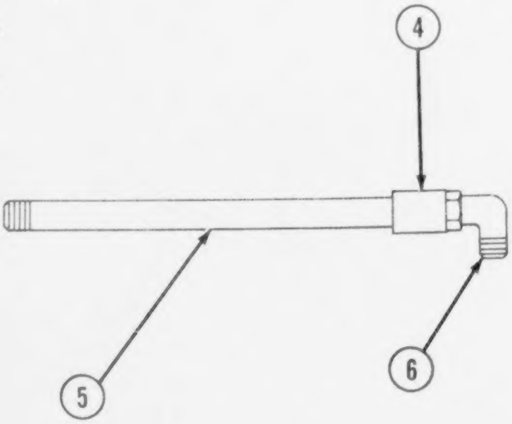
- Install union male end (3) on pulling elbow (1). Use two 10 inch pipe wrenches.



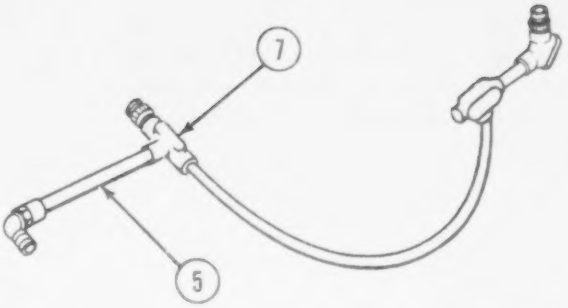
NOTE

If fittings were not removed, go to step 3.

2. INSTALL FITTINGS ON CONDUIT D.
   - Install conduit coupling (4) on Conduit D (5). Use two 10 inch pipe wrenches.
   - Install 90° elbow (6) on conduit coupling (4). Use two 10 inch pipe wrenches.



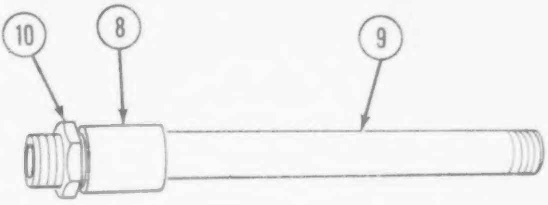
3. INSTALL CONDUIT D ON CONDUIT TEE.
   - Install Conduit D (5) on conduit tee (7). Use two 10 inch pipe wrenches.



NOTE

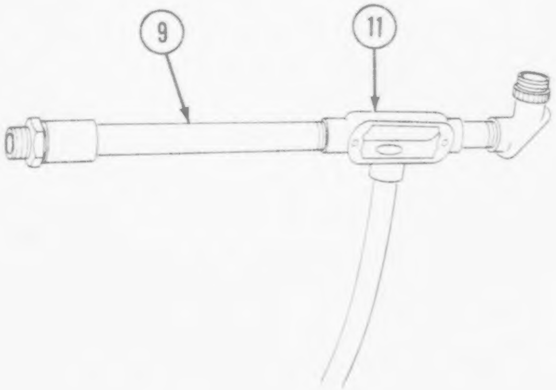
If fittings were not removed, go to step 5.

4. INSTALL FITTINGS ON CONDUIT A.
   - Install conduit coupling (8) on Conduit A (9). Use two 10 inch pipe wrenches.
   - Install connector body (10) on conduit coupling (8). Use 12 inch adjustable and 10 inch pipe wrenches.



---

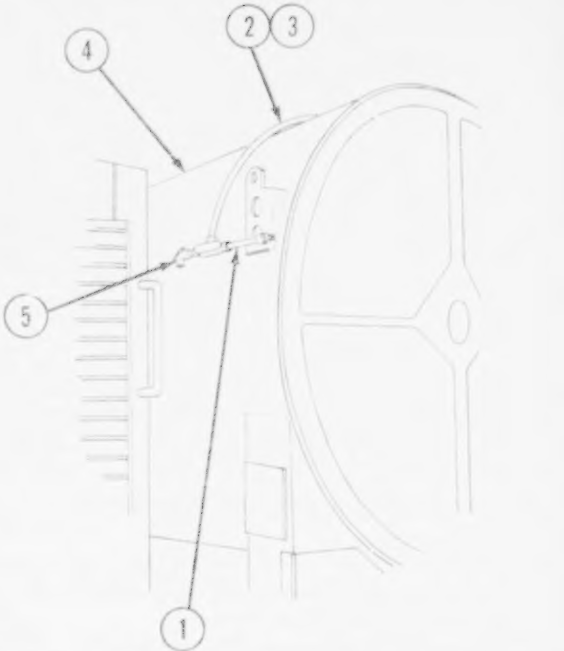
5. INSTALL CONDUIT A ON CONDUIT TEE.
   - Install Conduit A (9) on conduit tee (11). Use 10 inch pipe wrench.



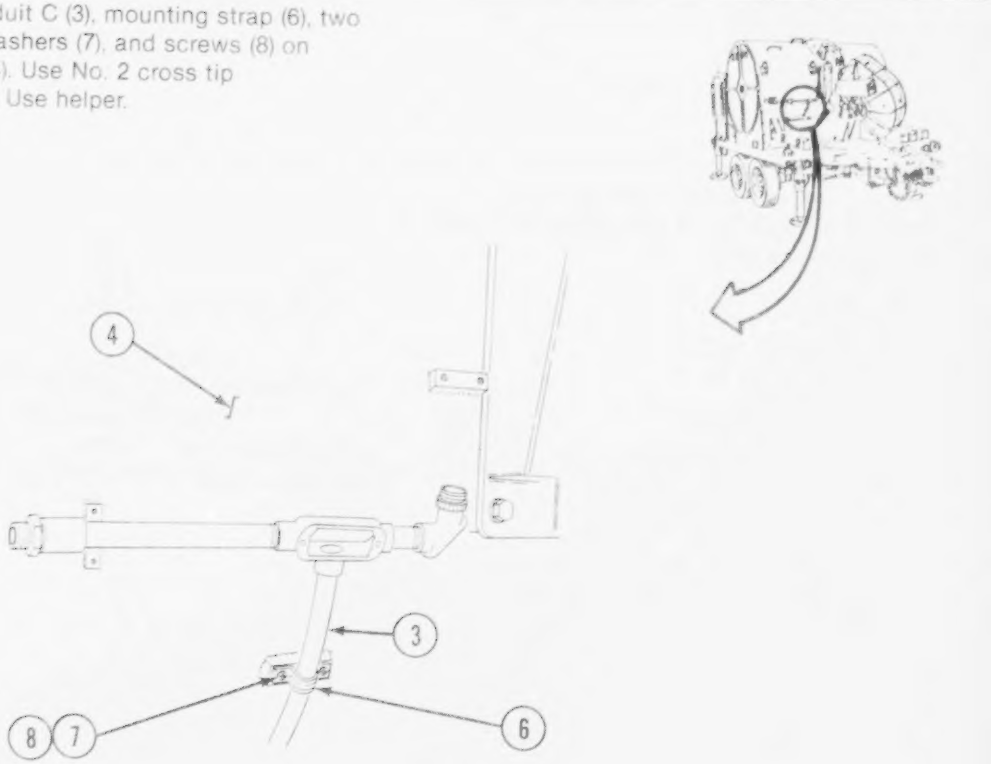
GO TO NEXT PAGE

B. INSTALLATION — Continued

6. INSTALL CONDUITS A, D, AND C ON MAGAZINE.
   - Position Conduit A (1), Conduit D (2), and Conduit C (3) on magazine (4), with pulling elbow (5) toward rear of magazine (4). Use helper.
   - Slide Conduit A (1), Conduit D (2), and Conduit C (3) under magazine (4).



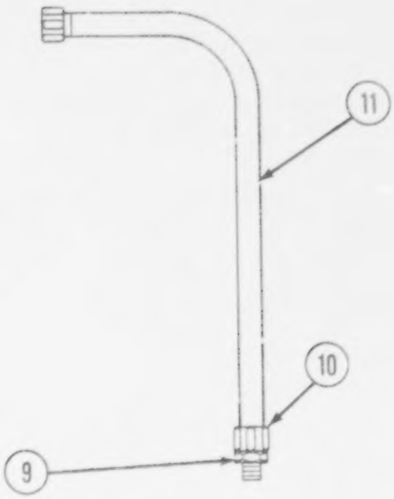
- Install Conduit C (3), mounting strap (6), two new lock washers (7), and screws (8) on magazine (4). Use No. 2 cross tip screwdriver. Use helper.



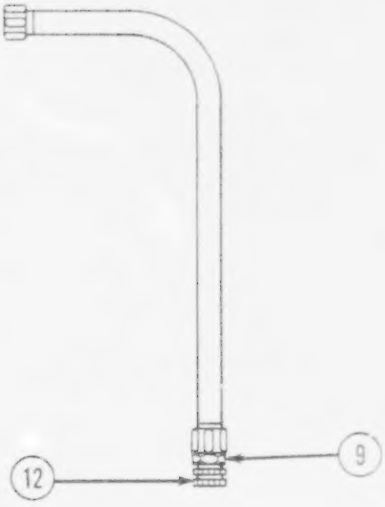
NOTE

If fittings were not removed, go to step 8.

7. INSTALL FITTINGS ON FLEXIBLE CONDUIT E.
   - Install connector body (9) on connector hub (10) of Conduit E (11). Use two 12 inch adjustable wrenches.



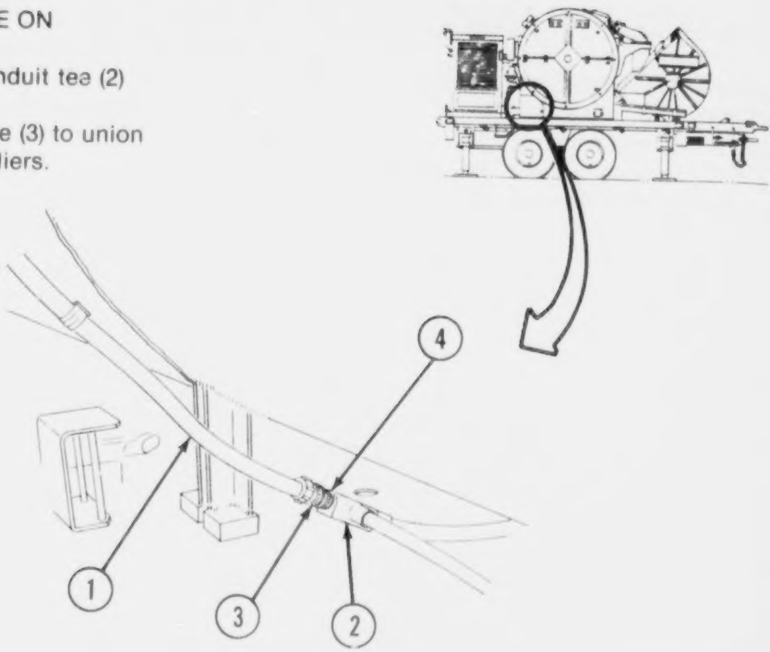
- Install union female end (12) on connector body (9). Use 12 inch adjustable and 10 inch pipe wrenches.



GO TO NEXT PAGE

B. INSTALLATION — Continued

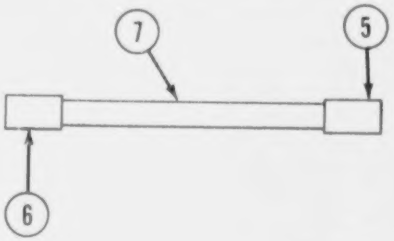
8. INSTALL FLEXIBLE CONDUIT E ON MAGAZINE.
   - Position Conduit E (1) on conduit tea (2) with holes alined.
   - Connect conduit union sleeve (3) to union male end (4). Use slip joint pliers.



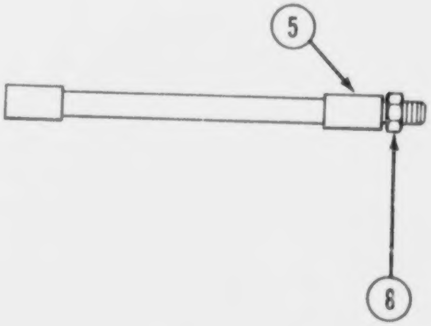
NOTE

If fittings were not removed, go to step 10.

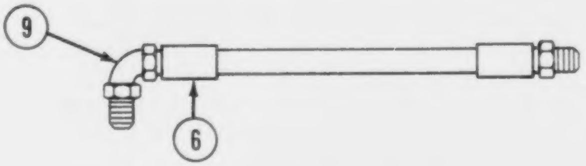
9. INSTALL FITTINGS ON CONDUIT F.
   - Install conduit coupling (5) and conduit coupling (6) on Conduit F (7). Use two 10 inch pipe wrenches.



- Install connector body (8) on conduit coupling (5). Use 12 inch adjustable and 10 inch pipe wrenches.

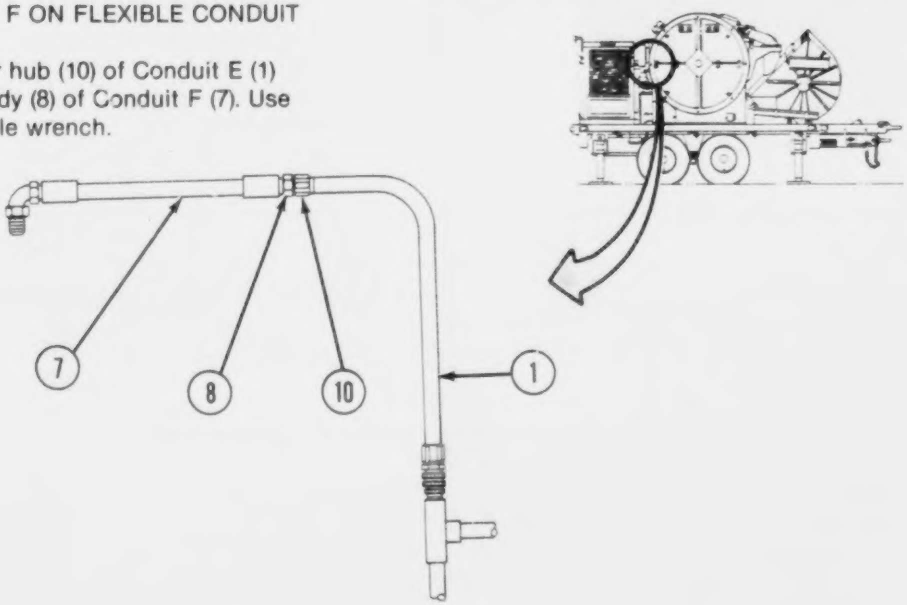


- Install 90° elbow (9) on conduit coupling (6). Use two 10 inch pipe wrenches.



---

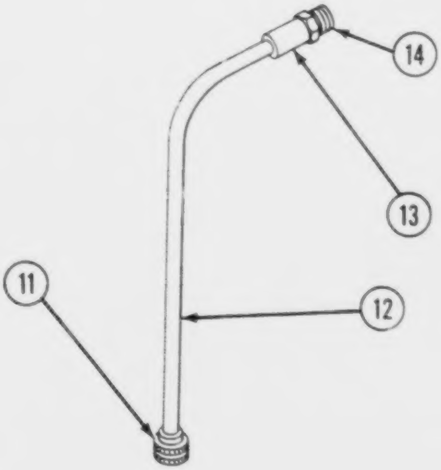
10. INSTALL CONDUIT F ON FLEXIBLE CONDUIT E.
    - Install connector hub (10) of Conduit E (1) on connector body (8) of Conduit F (7). Use 12 inch adjustable wrench.



NOTE

If fittings were not removed, go to step 12.

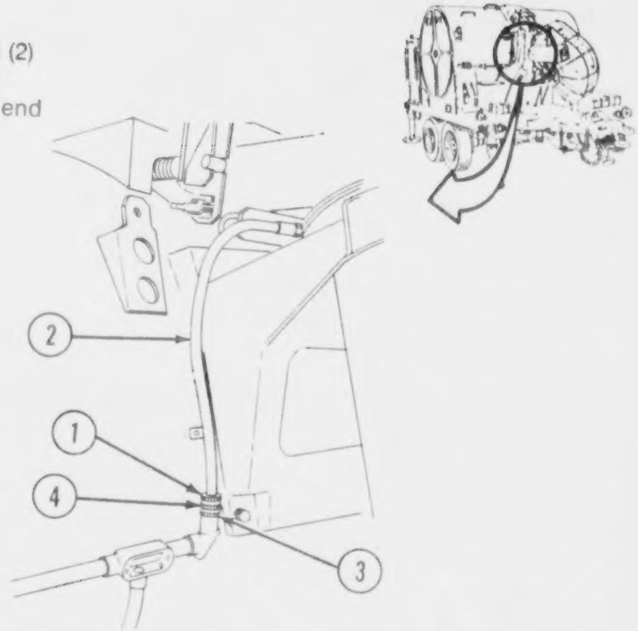
11. INSTALL FITTINGS ON CONDUIT B.
    - Install union female end (11) on Conduit B (12). Use two 10 inch pipe wrenches.
    - Install conduit coupling (13) on Conduit B (12). Use two 10 inch pipe wrenches.
    - Install connector body (14) on conduit coupling (13). Use 12 inch adjustable and 10 inch pipe wrenches.



GO TO NEXT PAGE

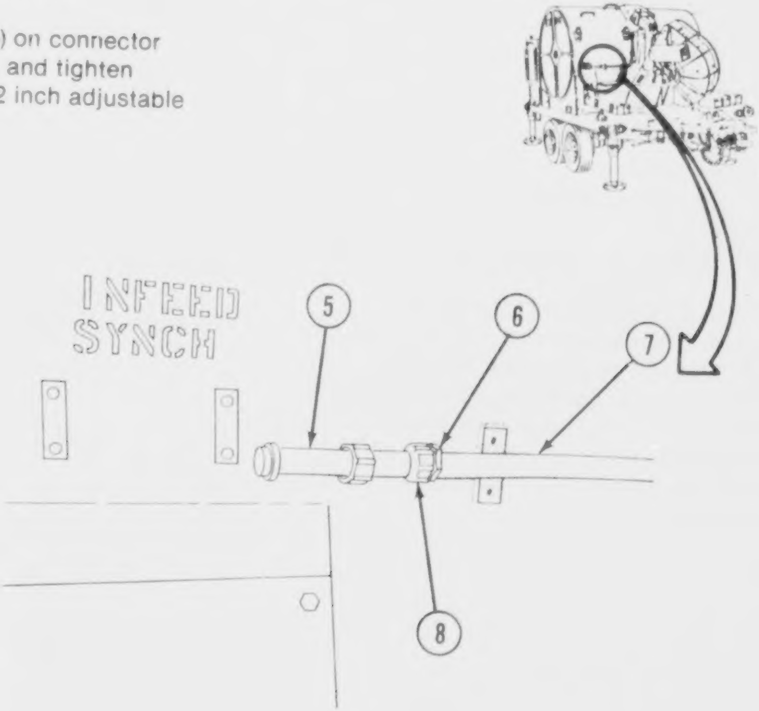
B. INSTALLATION — Continued

12. INSTALL CONDUIT B ON MAGAZINE.
    - Aline union female end (1) of Conduit B (2) with union male end (3).
    - Connect union sleeve (4) to union male end (3). Use slip joint pliers.



---

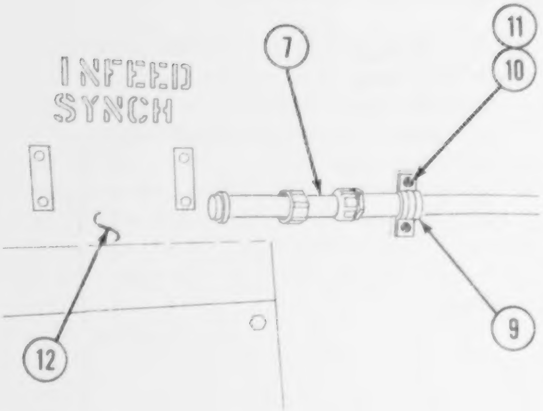
13. INSTALL FLEXIBLE CONDUIT ON CONDUIT A.
    - Install flexible conduit (5) on connector body (6) of Conduit A (7), and tighten connector hub (8). Use 12 inch adjustable wrench.



NOTE

Five conduit straps are installed the same way. Step 14 shows one strap on Conduit A.

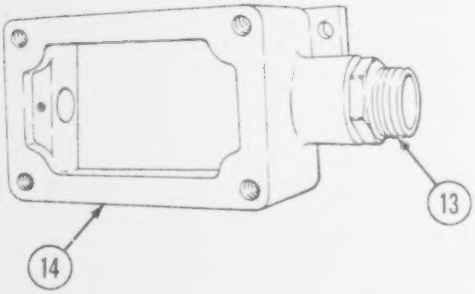
14. INSTALL FIVE CONDUIT STRAPS ON RIGHT MAGAZINE.
    - Install conduit strap (9), two new lock washers (10), and screws (11) on Conduit A (7) and magazine (12). Use No. 2 cross tip screwdriver.
    - Repeat above installation step for other four conduit straps.



NOTE

If fittings were not removed, go to step 16.

15. INSTALL FITTINGS ON PUSHBUTTON CONTROL STATION ASSEMBLY.
    - Install connector body (13) on control station (14). Use 12 inch adjustable wrench.

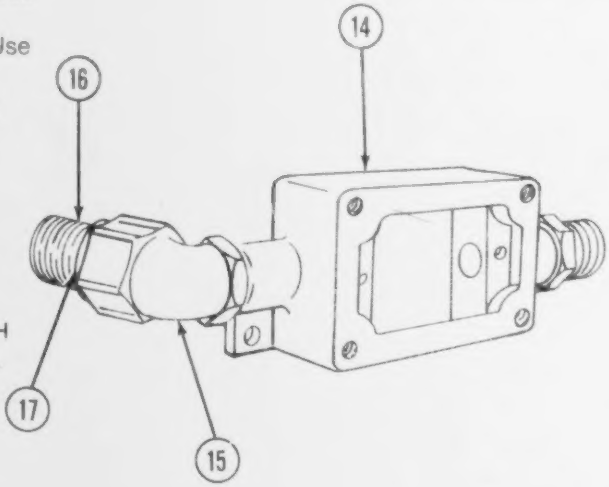


- Install elbow (15) on control station (14). Use 12 inch adjustable wrench.
- Install conduit nipple (16) on elbow (15). Use 6 inch strap wrench.
- Install new sealing O-ring (17) on conduit nipple (16).

NOTE

If name plate was not removed, go to step 17.

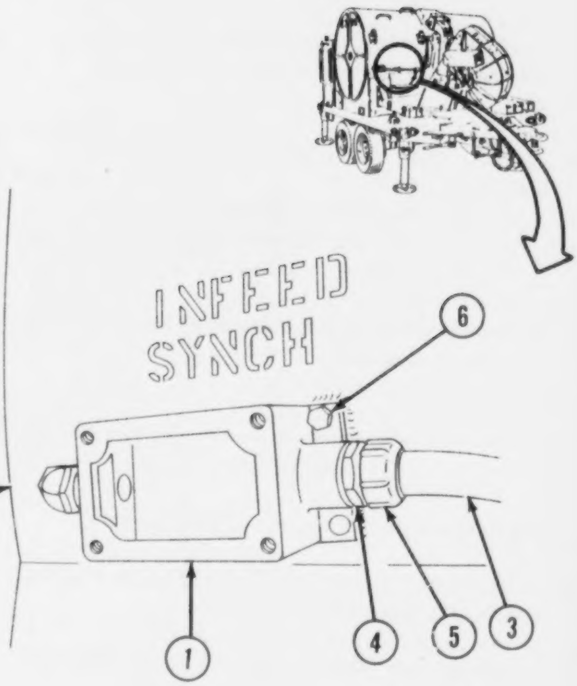
16. INSTALL LOAD ADVANCE/UNLOAD SWITCH NAME PLATE ON PUSHBUTTON CONTROL STATION. (SEE TM 9-1095-205-20.)



GO TO NEXT PAGE

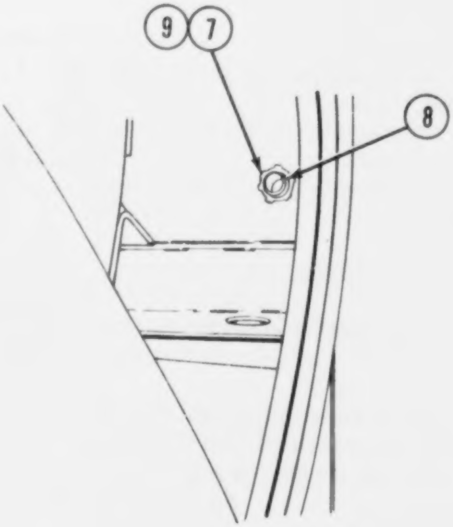
B. INSTALLATION — Continued

17. INSTALL PUSHBUTTON CONTROL STATION ON MAGAZINE.
    - Position control station (1) on magazine (2), with flexible conduit (3) alined with connector body (4).
    - Tighten connector hub (5) on connector body (4). Use 12 inch adjustable wrench.
    - Install control station (1) and two screws (6) on magazine (2). Use 7/16 inch open end wrench.



---

18. INSTALL NEW CONDUIT LOCK NUT ON CONDUIT NIPPLE.
    - Install new sealing O-ring (7) on conduit nipple (8).
    - Install new conduit lock nut (9) on conduit nipple (8). Use slip joint pliers.



NOTE

FOLLOW-ON MAINTENANCE:

Install Right Magazine Control Wiring Bundle. (See Right Magazine Control Wiring Installation, Page 20-55.)
Install Fuel Tank Assembly. (See Fuel Tank Assembly, Page 13-3.)
Install Engine Assembly Top. (See TM 9-1095-205-20.)
Install Engine Muffler. (See TM 9-1095-205-20.)
Install Fixed Panel Support. (See TM 9-1095-205-20.)
Install Fixed Panel. (See TM 9-1095-205-20.)
Install Hinged Panel. (See TM 9-1095-205-20.)
Fill Fuel Tank. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)
Close Right Magazine Access Doors. (See TM 9-1095-205-10.)

END OF TASK

20-8 TWO INCH CONDUIT ASSEMBLY

DESCRIPTION

This task covers:
A. REMOVAL (p 20-107)
B. INSTALLATION (p 20-109)

INITIAL SETUP

Tools and Special Tools:
- General mechanic's tool kit
  - 5180-00-177-7033:
    - 9/16 inch socket
    - Ratchet handle
    - 9/16 inch box end wrench
- 18 inch pipe wrench 5120-00-277-1461
- Strap pipe wrench 5120-00-262-8491
- Goggles 4240-00-269-7912

Materials/Parts:
- Self-locking nut (8) 5310-00-087-4652
- Self-locking nut (8) 5310-00-959-1488
- Sealing compound, Item 25, Appendix B

Personnel Required:
- Electrical repairer

References:
- TM 9-1095-205-10
- TM 9-1095-205-20

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

OVERVIEW

Conduit assemblies are not supplied as parts. If you need a new assembly, see Appendix C, and make one. See:
9291515 two inch conduit assembly.

Two inch conduit assembly must be assembled on chassis.

A. REMOVAL

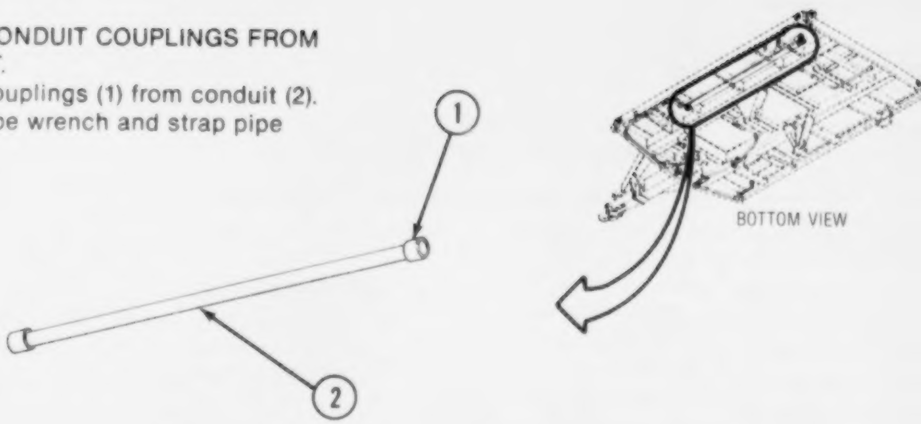
NOTE

PRELIMINARY PROCEDURES:
Open Battery Box Covers. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Positive Lead From No. 1 Battery. (See TM 9-1095-205-20.)
Open Engine Hinged Panel. (See TM 9-1095-205-10.)
Remove Battery Cables No. 1 and No. 2. (See TM 9-1095-205-20.)

GO TO NEXT PAGE

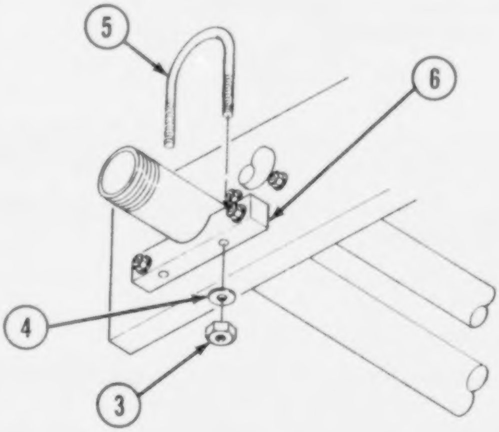
A. REMOVAL — Continued

1. REMOVE TWO CONDUIT COUPLINGS FROM 2 INCH CONDUIT.
   - Remove two couplings (1) from conduit (2). Use 18 inch pipe wrench and strap pipe wrench.



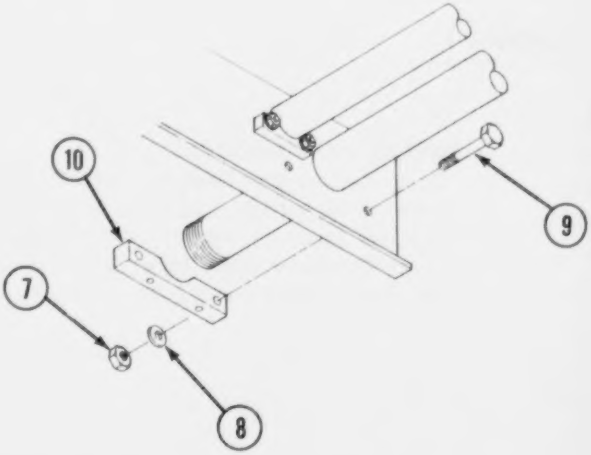
---

2. REMOVE FOUR U-BOLTS FROM FOUR CONDUIT CLAMPS.
   - Remove two self-locking nuts (3), washers (4), and U-bolt (5) from conduit clamp (6). Use 9/16 inch socket with ratchet handle. Discard self-locking nuts.
   - Repeat above removal step for other three U-bolts.

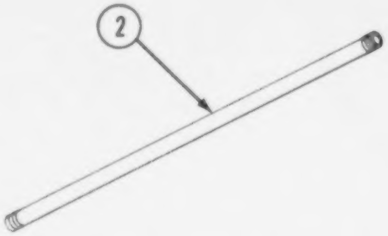


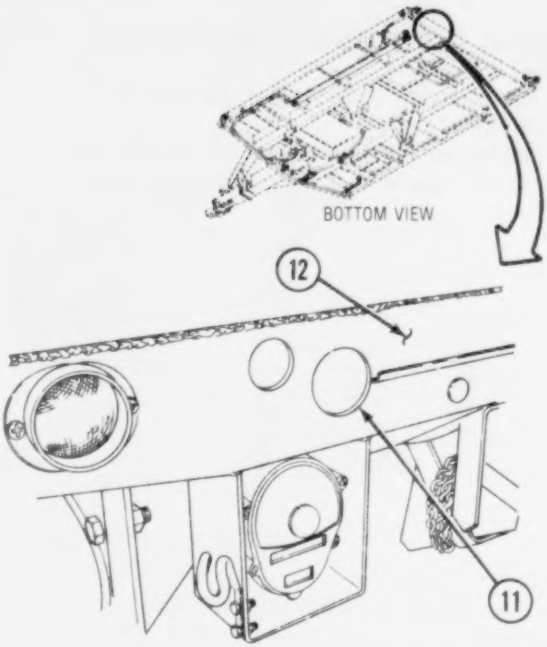
---

3. REMOVE FOUR CONDUIT CLAMPS FROM CHASSIS.
   - Remove two self-locking nuts (7), washers (8), screws (9), and conduit clamp (10) from chassis. Use 9/16 inch socket with ratchet handle and 9/16 inch box end wrench. Discard self-locking nuts.
   - Repeat above removal step for other three conduit clamps.



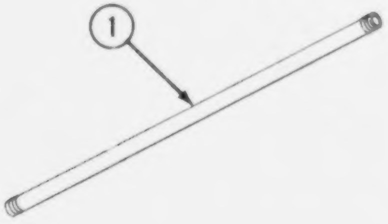
4. REMOVE 2 INCH CONDUIT FROM CHASSIS.
   - Slide conduit (2) to rear of chassis and out large hole (11) in chassis rear rail (12).

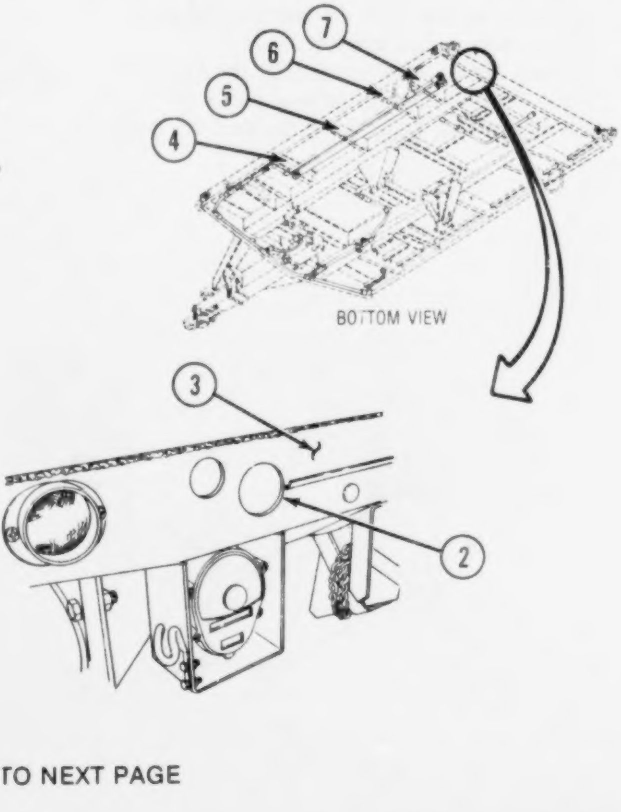




B. INSTALLATION

1. POSITION 2 INCH CONDUIT UNDER CHASSIS.
   - Slide conduit (1) through large hole (2) in chassis rear rail (3) and forward until supported in holes in outriggers No. 3 (4), No. 4 (5), No. 5 (6), and No. 6 (7).

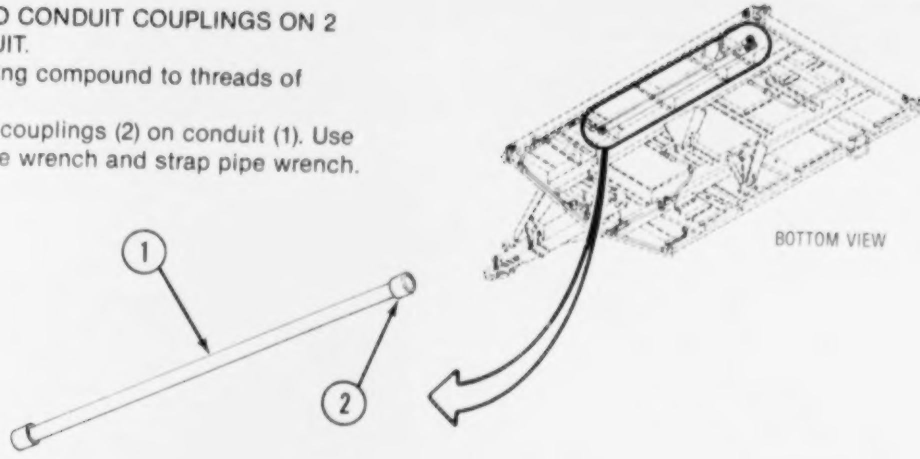




GO TO NEXT PAGE

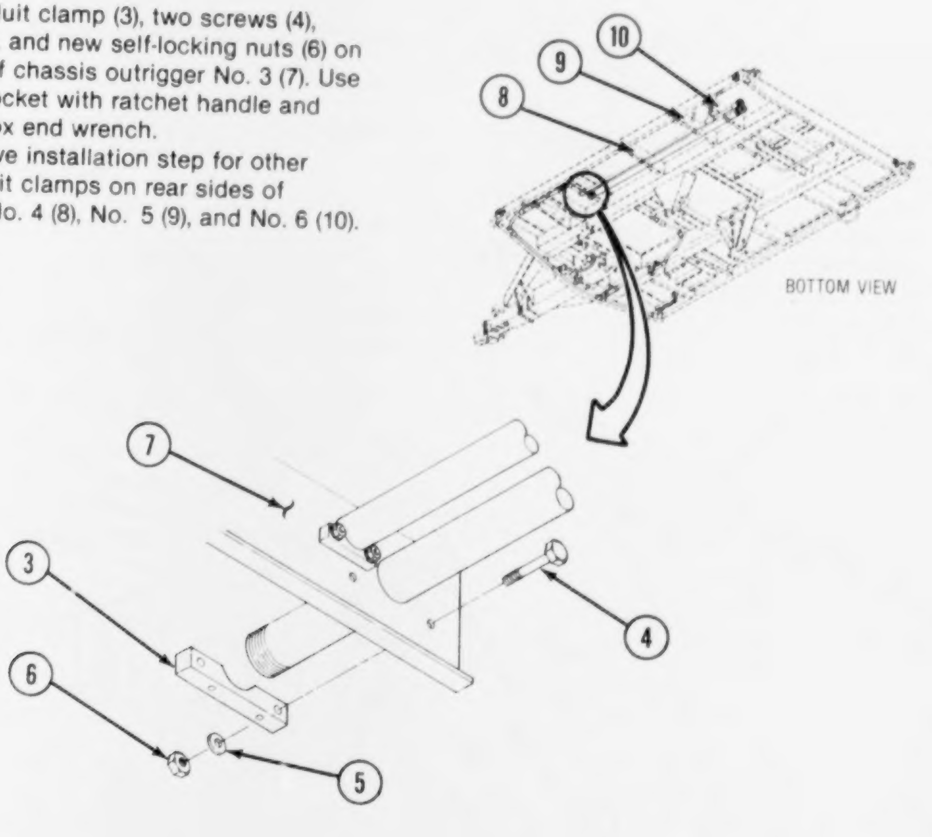
B. INSTALLATION — Continued

2. INSTALL TWO CONDUIT COUPLINGS ON 2 INCH CONDUIT.
   - Apply sealing compound to threads of conduit (1).
   - Install two couplings (2) on conduit (1). Use 18 inch pipe wrench and strap pipe wrench.

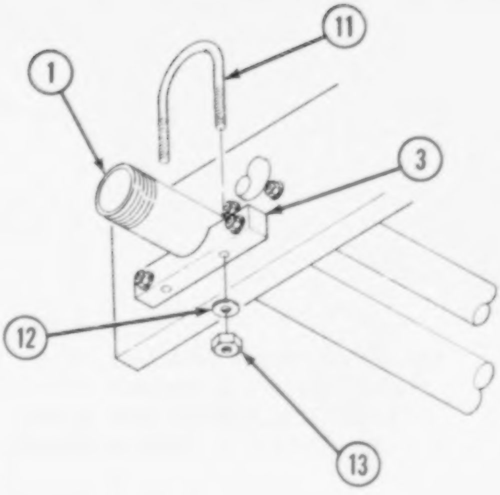


---

3. INSTALL FOUR CONDUIT CLAMPS ON CHASSIS.
   - Install conduit clamp (3), two screws (4), washers (5), and new self-locking nuts (6) on front side of chassis outrigger No. 3 (7). Use 9/16 inch socket with ratchet handle and 9/16 inch box end wrench.
   - Repeat above installation step for other three conduit clamps on rear sides of outriggers No. 4 (8), No. 5 (9), and No. 6 (10).



4. INSTALL FOUR U-BOLTS ON FOUR CONDUIT CLAMPS.
   - Place U-bolt (11) over conduit (1) with ends of U-bolt through holes in conduit clamp (3).
   - Install two washers (12) and new self-locking nuts (13) on U-bolt (11). Use 9/16 inch socket with ratchet handle.
   - Repeat above installation steps for other three U-bolts.



NOTE

FOLLOW-ON MAINTENANCE:

Install Battery Cables No. 1 and No. 2. (See TM 9-1095-205-20.)
Close Engine Hinged Panel. (See TM 9-1095-205-10.)
Install Positive Lead On No. 1 Battery. (See TM 9-1095-205-20.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Battery Box Covers. (See TM 9-1095-205-10.)

END OF TASK

20-9 LEFT SIDE CHASSIS CONDUIT GROUP

DESCRIPTION

This task covers:
A. REMOVAL (p 20-114)
B. INSTALLATION (p 20-120)

INITIAL SETUP

Tools and Special Tools:
General mechanic's tool kit
5180-00-177-7033:
9/16 inch socket
7/16 inch socket
Ratchet handle
9/16 inch box end wrench
7/16 inch box end wrench
14 inch pipe wrench (2) 5120-00-277-1486
10 inch slip joint pliers 5120-00-278-0352
Goggles 4240-00-269-7912
15 inch adjustable automotive wrench (2)
5120-00-264-3763

Materials/Parts:
Self-locking nut (10) 5310-00-087-4652
Self-locking nut (2) 5310-00-088-1251
Self-locking nut (6) 5310-00-959-1488
Sealing compound, Item 25, Appendix B

Personnel Required:
Electrical repairer

References:
TM 9-1095-205-10
TM 9-1095-205-20
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, Page 16-3
FRONT CHASSIS CONDUIT GROUP, Page 20-129

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

OVERVIEW

Conduit groups are not supplied as parts. If you need a new conduit group, see Appendix C, and assemble one. See:
9291520 left side chassis conduit group.

Left side chassis conduit group must be assembled on chassis.

GO TO NEXT PAGE

20-9 LEFT SIDE CHASSIS CONDUIT GROUP — Continued

A. REMOVAL

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)

Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)

Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)

Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)

Unstow Operator's Manual. (See TM 9-1095-205-10.)

Unstow Rawhide Mallet. (See TM 9-1095-205-10.)

Unstow Manual Crank. (See TM 9-1095-205-10.)

Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)

Open BITE Panel Door. (See TM 9-1095-205-10.)

Remove Launcher Hookup Cable Assembly J9. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

Remove Oscillator Solenoid Valve Cable Assembly P41. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

Remove Launcher Wheel Solenoid Valve Cable Assembly P42. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

Remove Wire Bundle Assemby 1PB. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

Remove Wire Bundle Assembly 2PB. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

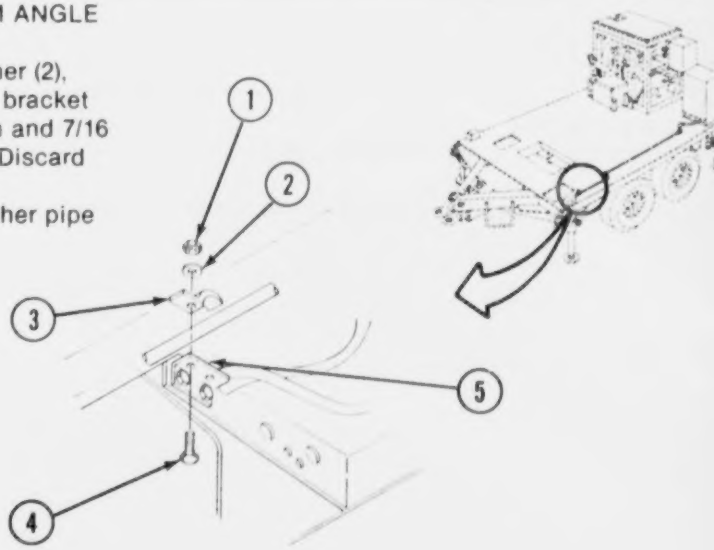
Remove Wire Bundle Assembly JB4. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

Remove Wire No. 1 And Wire No. 2 Lead Assemblies. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)

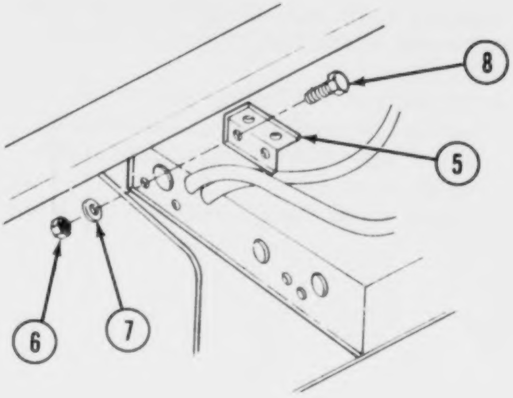
Remove Front Chassis Conduit Group. (See Front Chassis Conduit Group, Page 20-129.)

---

1. REMOVE TWO PIPE STRAPS FROM ANGLE BRACKETS.
   - Remove self-locking nut (1), washer (2), pipe strap (3), and screw (4) from bracket (5). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle. Discard self-locking nut.
   - Repeat above removal step for other pipe strap on other angle bracket.

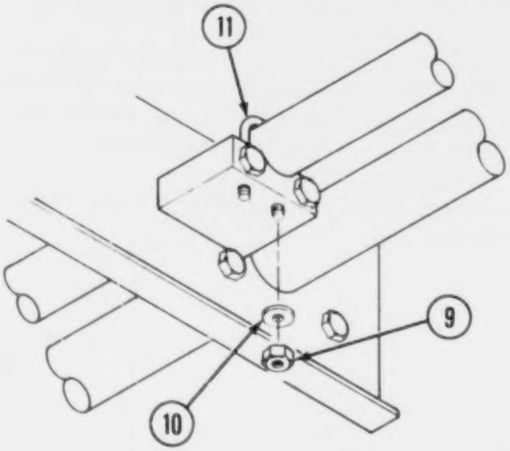


2. REMOVE TWO ANGLE BRACKETS FROM CHASSIS.
   - Remove two self-locking nuts (6), washers (7), screws (8), and bracket (5) from chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle. Discard self-locking nuts.
   - Repeat above removal step for other bracket.



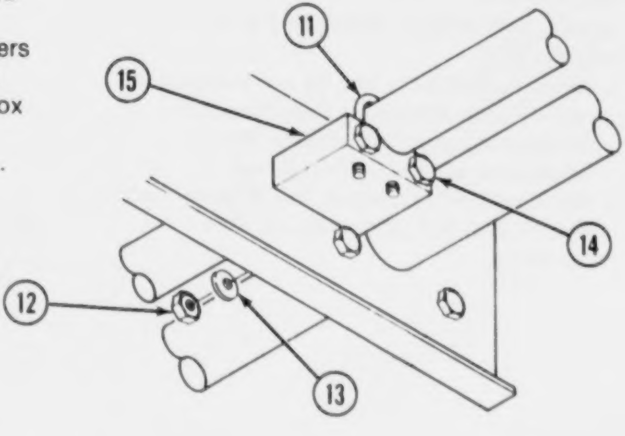
---

3. REMOVE TWO SELF-LOCKING NUTS AND WASHERS FROM FORWARD CONDUIT CLAMP U-BOLT.
   - Remove two self-locking nuts (9) and washers (10) from U-bolt (11). Use 9/16 inch box end wrench. Discard self-locking nuts.



---

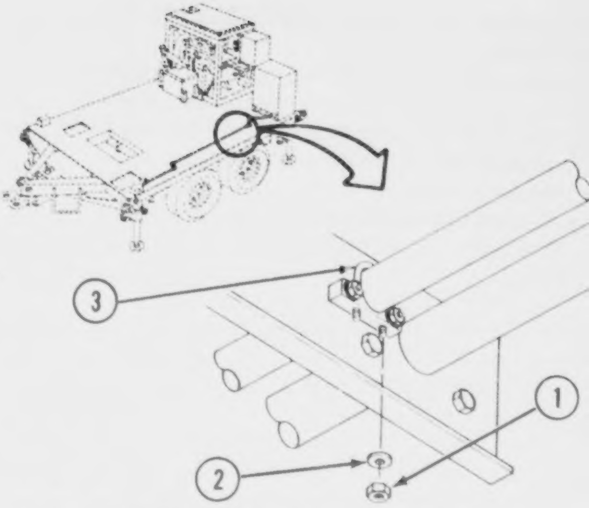
4. REMOVE FORWARD CONDUIT CLAMP AND U-BOLT FROM CHASSIS.
   - Remove two self-locking nuts (12), washers (13), screws (14), forward clamp (15), and U-bolt (11) from chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle. Discard self-locking nuts.



GO TO NEXT PAGE

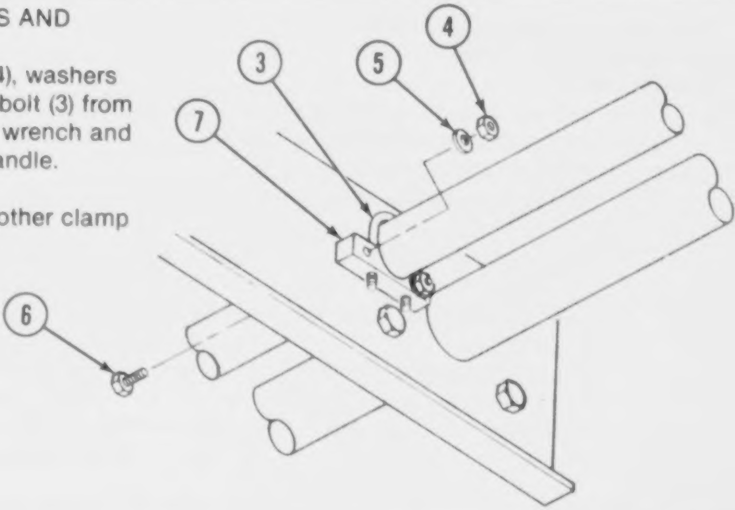
A. REMOVAL — Continued

5. REMOVE FOUR SELF-LOCKING NUTS AND WASHERS FROM TWO CONDUIT CLAMP U-BOLTS.
   - Remove two self-locking nuts (1) and washers (2) from U-bolt (3). Use 9/16 inch socket with ratchet handle. Discard self-locking nuts.
   - Repeat above removal step for other U-bolt.



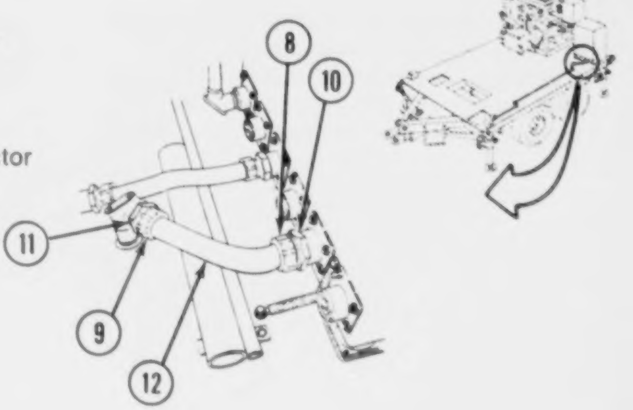
---

6. REMOVE TWO CONDUIT CLAMPS AND U-BOLTS FROM CHASSIS.
   - Remove two self-locking nuts (4), washers (5), screws (6), clamp (7), and U-bolt (3) from chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle. Discard self-locking nuts.
   - Repeat above removal step for other clamp and U-bolt.



---

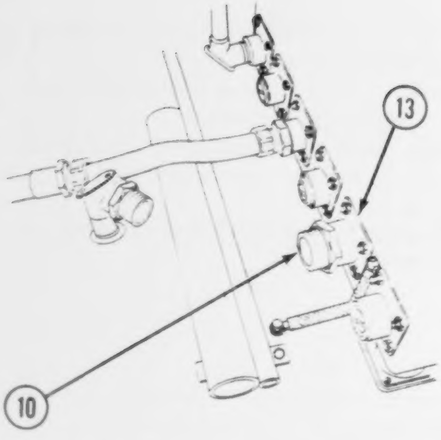
7. REMOVE FLEXIBLE CONDUIT FROM DISPENSER.
   - Remove connector hub (8) and connector hub (9) from connector body (10) and connector body (11). Use two 15 inch adjustable automotive wrenches.
   - Remove flexible conduit (12), with connector hub (8) and connector hub (9), from dispenser.



NOTE

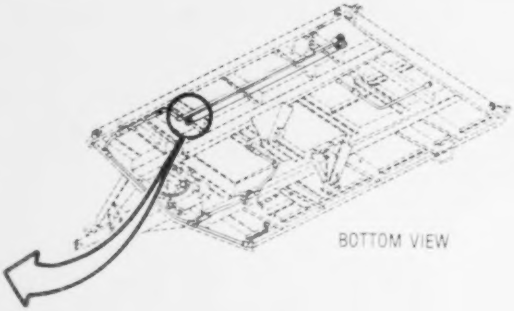
Do not remove connector body unless required for maintenance.

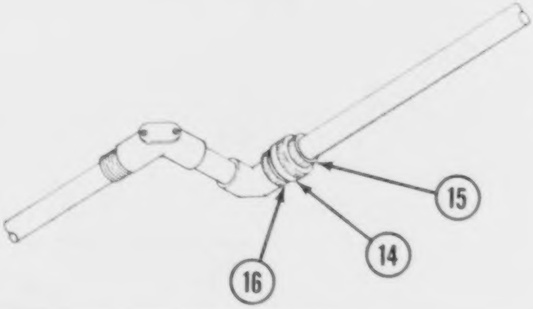
8. REMOVE CONNECTOR BODY FROM CONDUIT HUB.
   - Remove connector body (10) from conduit hub (13). Use 15 inch adjustable automotive wrench.



---

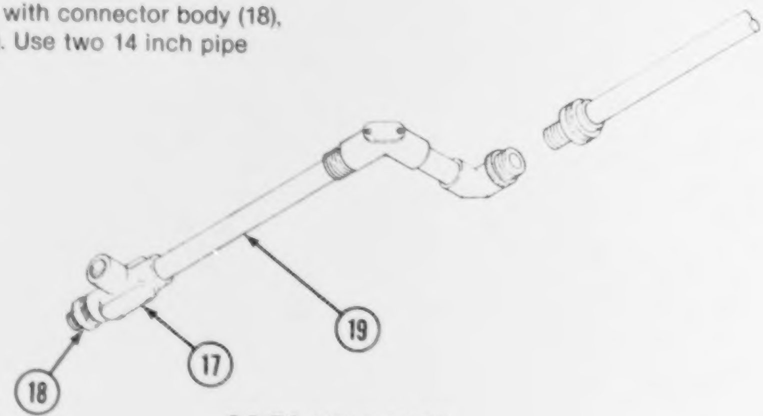
9. TURN RIGID CONDUIT UNION SLEEVE, AND DISCONNECT UNION FEMALE END FROM MALE END.
   - Turn sleeve (14), and disconnect female end (15) from male end (16). Use slip joint pliers.





---

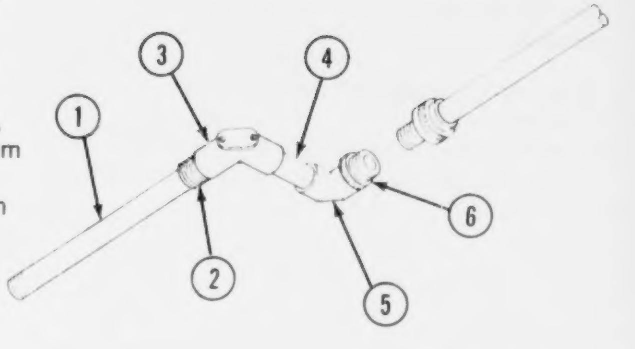
10. REMOVE CONDUIT TEE, WITH CONNECTOR BODY, FROM RIGID CONDUIT.
    - Remove tee (17), with connector body (18), from conduit (19). Use two 14 inch pipe wrenches.



GO TO NEXT PAGE

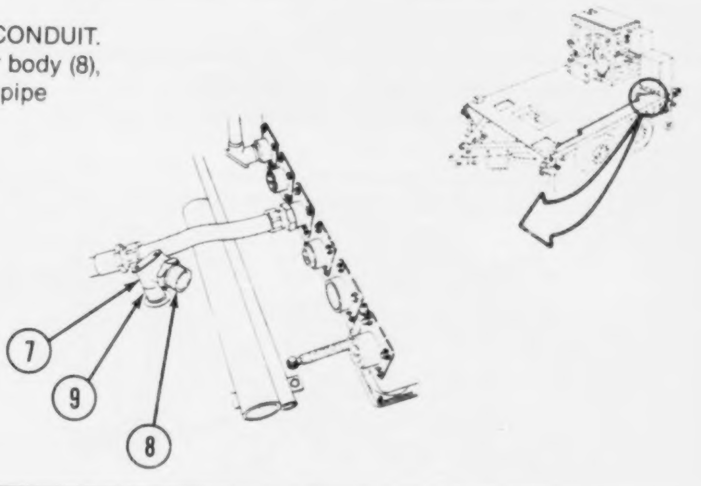
A. REMOVAL — Continued

11. REMOVE RIGID CONDUIT FROM CONDUIT REDUCING BUSHING.
    - Remove conduit (1) from bushing (2). Use two 14 inch pipe wrenches.
    - Remove bushing (2), elbow (3), conduit (4), and elbow (5), with union male end (6), from chassis.
    - Slide conduit (1) forward, and remove from dispenser.



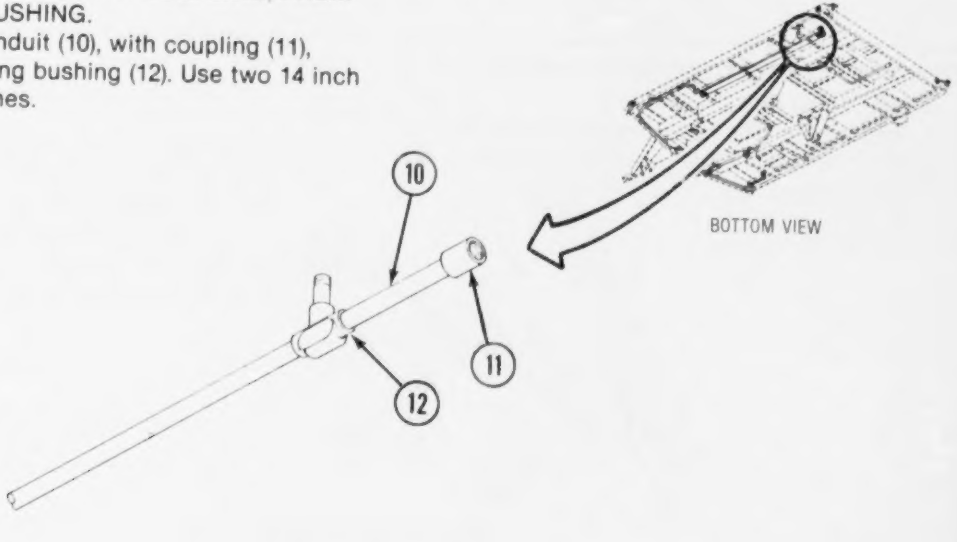
---

12. REMOVE PULLING ELBOW, WITH CONNECTOR BODY, FROM RIGID CONDUIT.
    - Remove elbow (7), with connector body (8), from conduit (9). Use two 14 inch pipe wrenches.

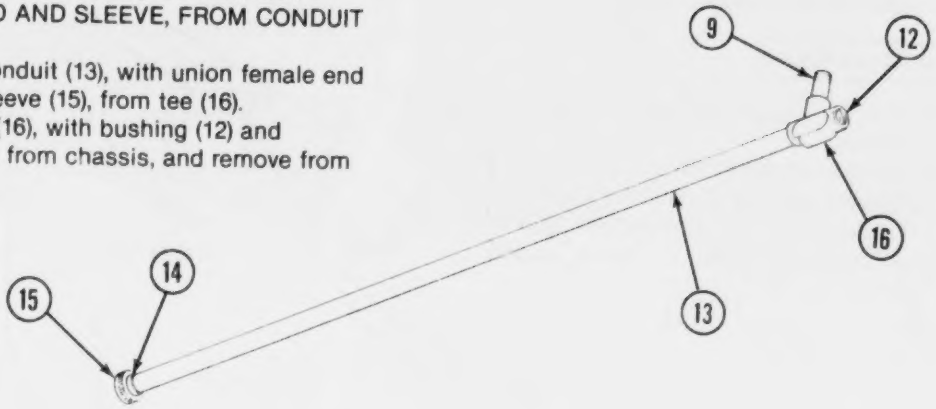


---

13. REMOVE CONDUIT, WITH COUPLING, FROM REDUCING BUSHING.
    - Remove conduit (10), with coupling (11), from reducing bushing (12). Use two 14 inch pipe wrenches.

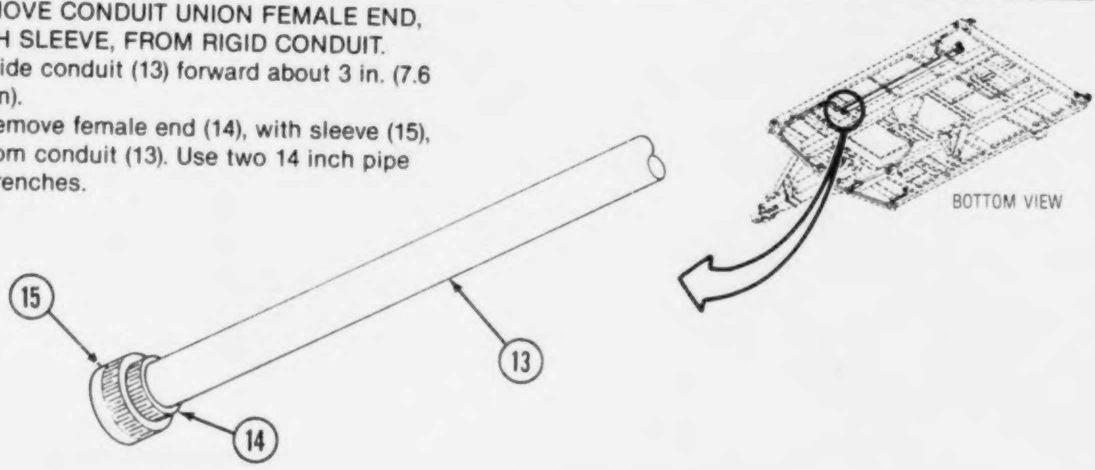


14. REMOVE RIGID CONDUIT, WITH UNION FEMALE END AND SLEEVE, FROM CONDUIT TEE.
    - Remove conduit (13), with union female end (14) and sleeve (15), from tee (16).
    - Lower tee (16), with bushing (12) and conduit (9), from chassis, and remove from dispenser.



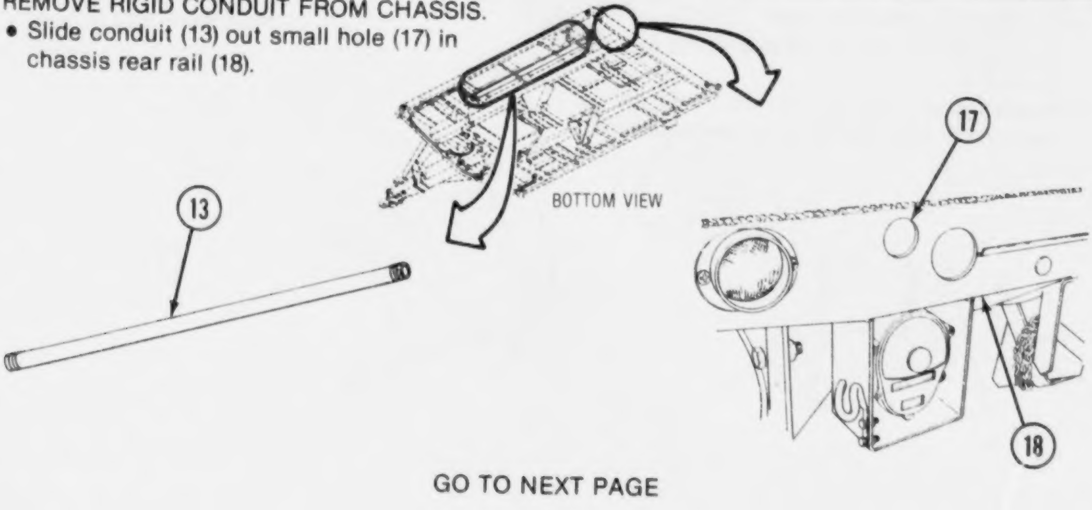
---

15. REMOVE CONDUIT UNION FEMALE END, WITH SLEEVE, FROM RIGID CONDUIT.
    - Slide conduit (13) forward about 3 in. (7.6 cm).
    - Remove female end (14), with sleeve (15), from conduit (13). Use two 14 inch pipe wrenches.



---

16. REMOVE RIGID CONDUIT FROM CHASSIS.
    - Slide conduit (13) out small hole (17) in chassis rear rail (18).

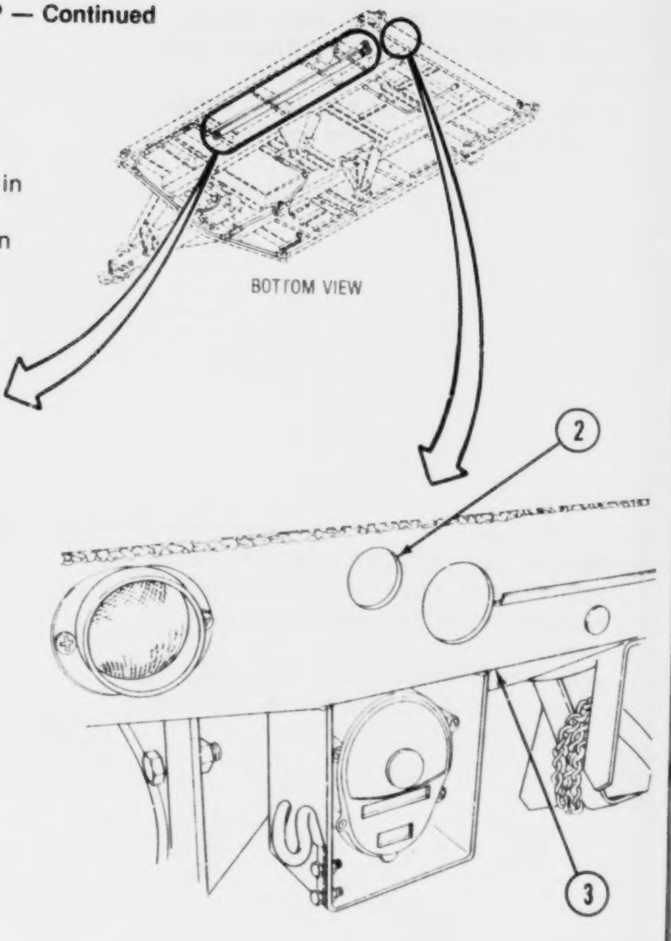


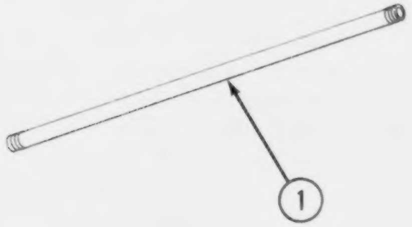
GO TO NEXT PAGE

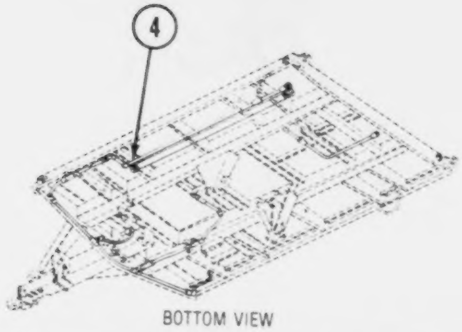
20-9 LEFT SIDE CHASSIS CONDUIT GROUP — Continued

B. INSTALLATION

1. POSITION RIGID CONDUIT UNDER CHASSIS.
   - Insert conduit (1) through small hole (2) in chassis rear rail (3), and slide conduit forward until front end is through hole in outrigger No. 3 (4).

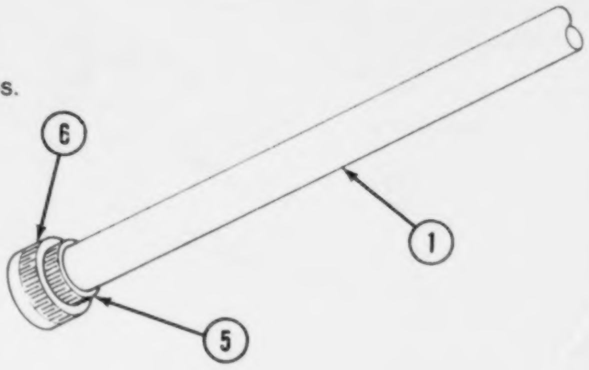




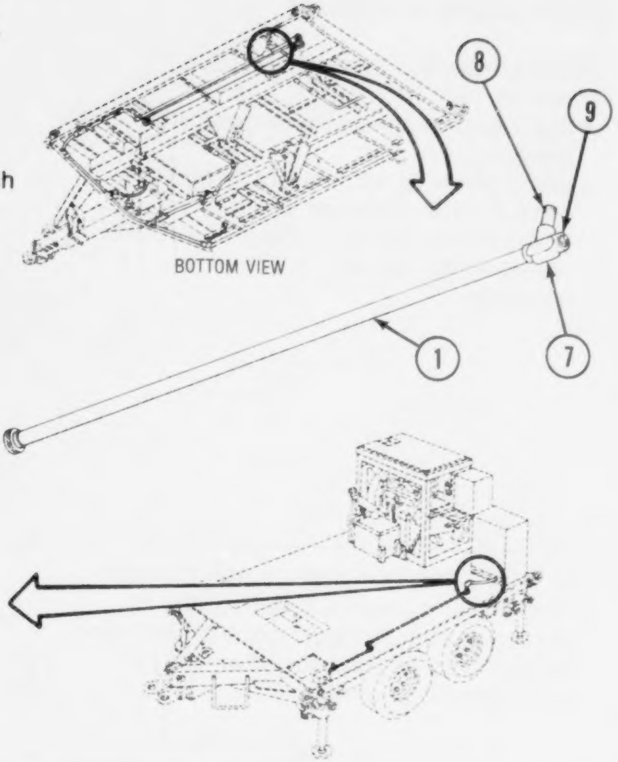


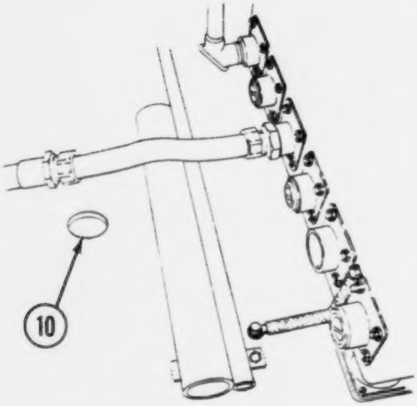
---

2. INSTALL CONDUIT UNION FEMALE END, WITH SLEEVE, ON CONDUIT.
   - Apply sealing compound to threads of conduit (1).
   - Install female end (5), with sleeve (6), on conduit (1). Use two 14 inch pipe wrenches.



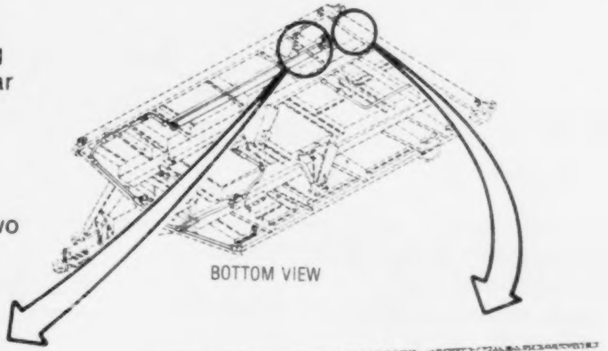
3. INSTALL RIGID CONDUIT ON CONDUIT TEE.
   - Apply sealing compound to threads at rear end of conduit (1).
   - Position tee (7), with conduit (8) and reducing bushing (9), under chassis so conduit is through hole (10) in chassis.
   - Install conduit (1) on tee (7). Use two 14 inch pipe wrenches.

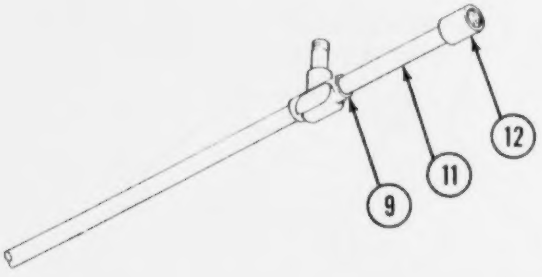


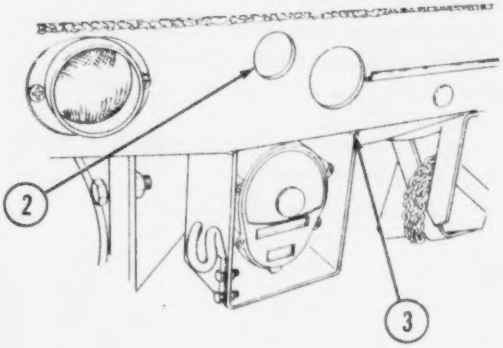


---

4. INSTALL RIGID CONDUIT ON REDUCING BUSHING.
   - Insert conduit (11), with conduit coupling (12), through small hole (2) in chassis rear rail (3), and slide conduit forward until alined with bushing (9).
   - Apply sealing compound to threads of conduit (11).
   - Install conduit (11) on bushing (9). Use two 14 inch pipe wrenches.



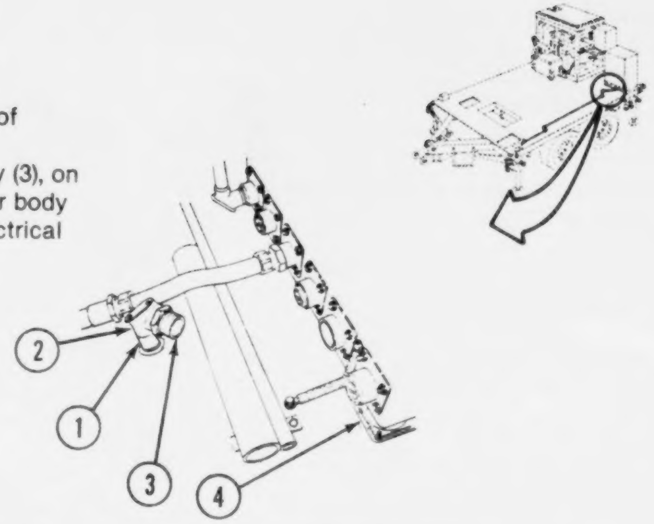




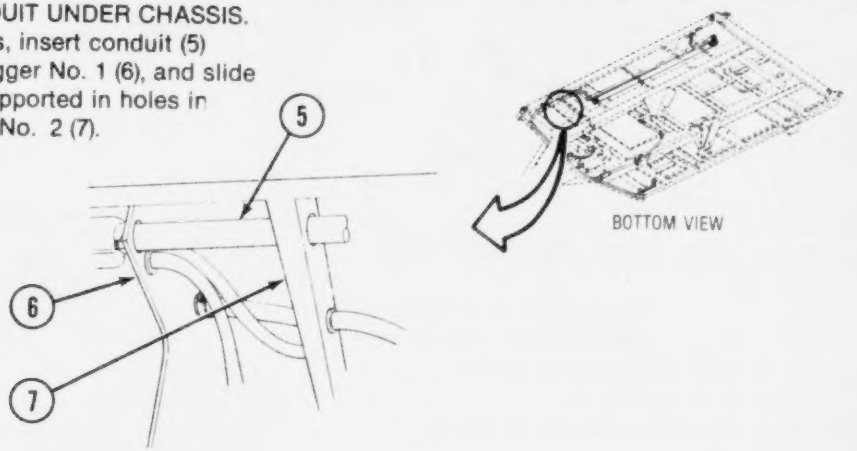
GO TO NEXT PAGE

B. INSTALLATION — Continued

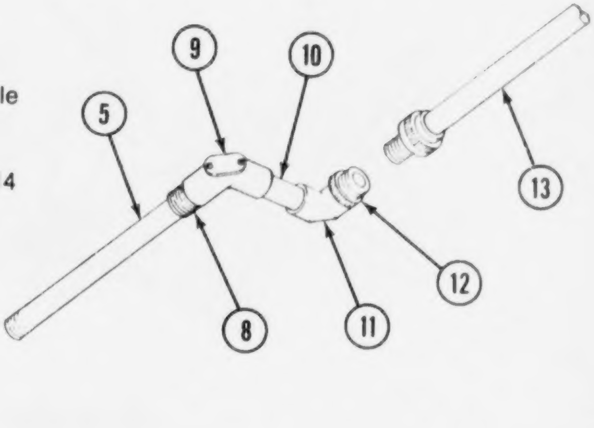
5. INSTALL PULLING ELBOW ON RIGID CONDUIT.
   - Apply sealing compound to threads of conduit (1).
   - Install elbow (2), with connector body (3), on conduit (1), so open end of connector body points toward left front corner of electrical enclosure (4). Use two 14 inch pipe wrenches.



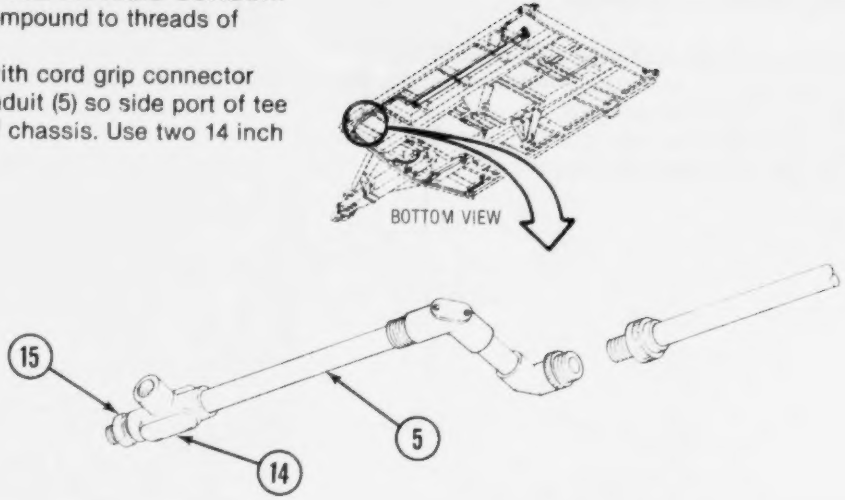
6. POSITION RIGID CONDUIT UNDER CHASSIS.
   - From front of chassis, insert conduit (5) through hole in outrigger No. 1 (6), and slide conduit back until supported in holes in outriggers No. 1 and No. 2 (7).



7. INSTALL RIGID CONDUIT ON CONDUIT REDUCING BUSHING.
   - Apply sealing compound to threads of conduit (5).
   - Position assembled bushing (8), elbow (9), conduit (10), and elbow (11), with union male end (12), alined with conduit (13) and conduit (5).
   - Install conduit (5) on bushing (8). Use two 14 inch pipe wrenches.

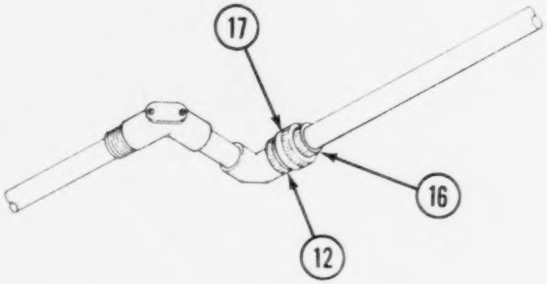


8. INSTALL CONDUIT TEE ON RIGID CONDUIT.
   - Apply sealing compound to threads of conduit (5).
   - Install tee (14), with cord grip connector body (15), on conduit (5) so side port of tee faces left side of chassis. Use two 14 inch pipe wrenches.



---

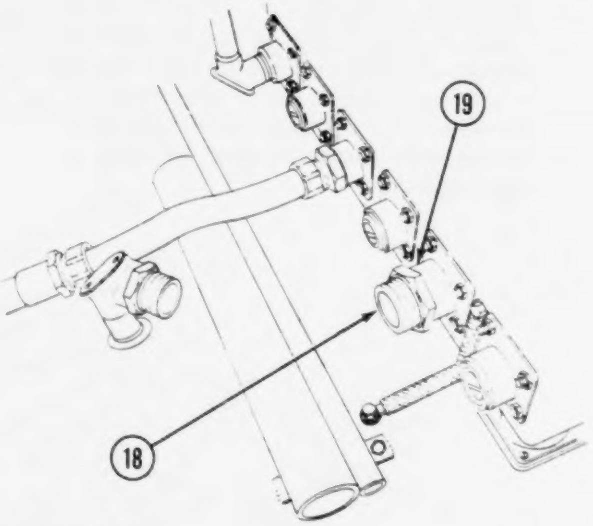
9. CONNECT UNION FEMALE END TO UNION MALE END.
   - Aline union female end (16) with union male end (12).
   - Connect union sleeve (17) to union male end (12). Use slip joint pliers.



NOTE

If connector body was not removed, go to step 11.

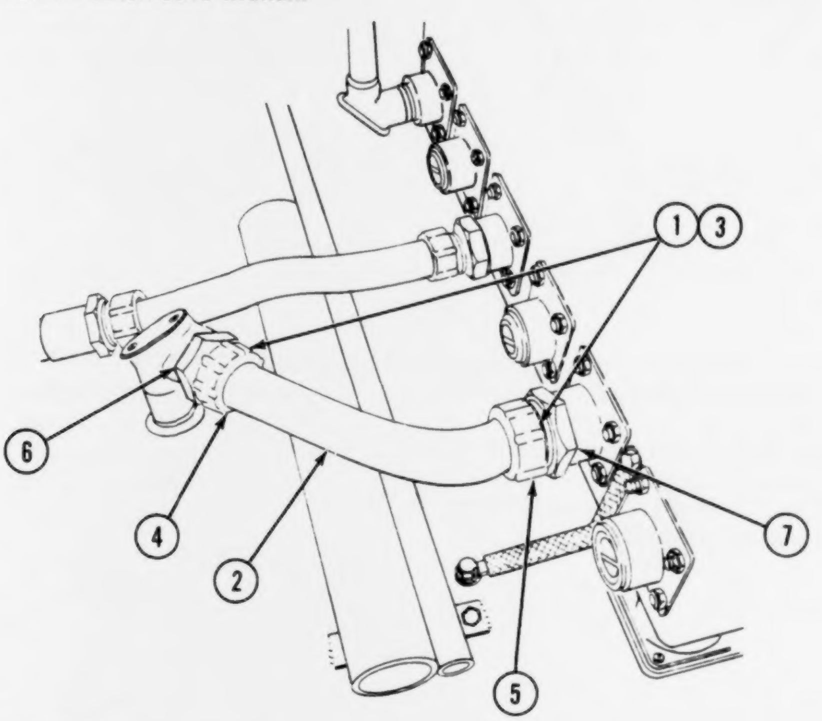
10. INSTALL CONNECTOR BODY ON CONDUIT HUB.
    - Apply sealing compound to threads of connector body (18).
    - Install connector body (18) on conduit hub (19). Use 15 inch adjustable automotive wrench.



GO TO NEXT PAGE

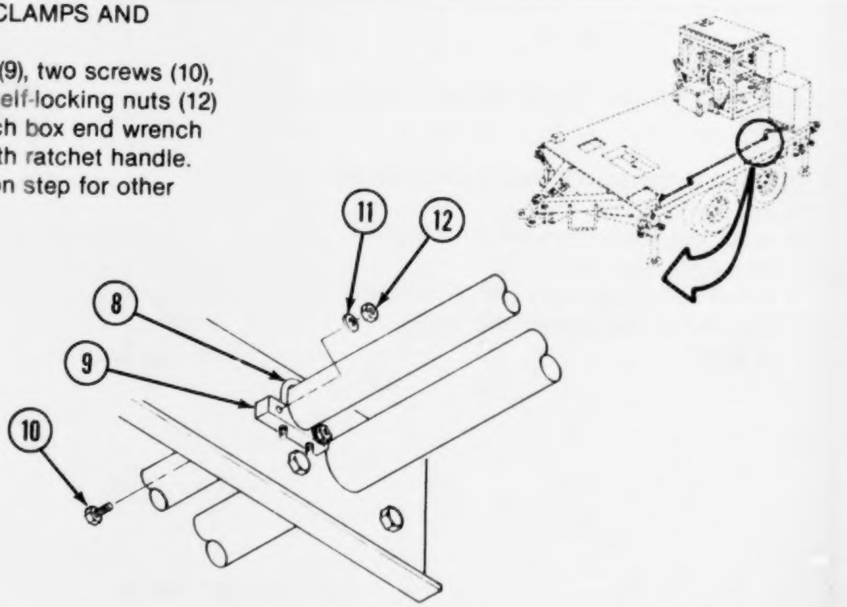
B. INSTALLATION — Continued

11. INSTALL FLEXIBLE CONDUIT ON DISPENSER.
    - Insert ends of sleeves (1), with conduit (2), sealing rings (3), hub (4), and hub (5), into connector boc (6) and connector body (7).
    - Install connector hub (4) and connector hub (5) on connector body (6) and connector body (7). Use 15 inch adjustable automotive wrench.

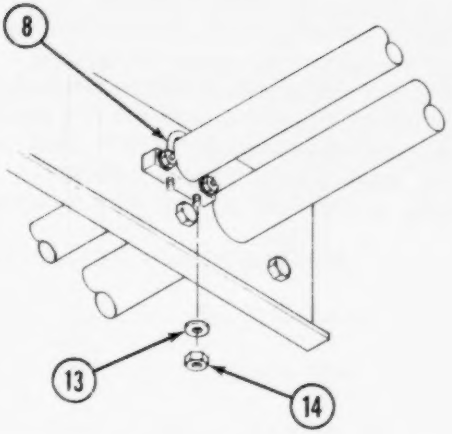


---

12. INSTALL TWO CONDUIT CLAMPS AND U-BOLTS ON CHASSIS.
    - Install U-bolt (8), clamp (9), two screws (10), washers (11), and new self-locking nuts (12) on chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle.
    - Repeat above installation step for other clamp and U-bolt.

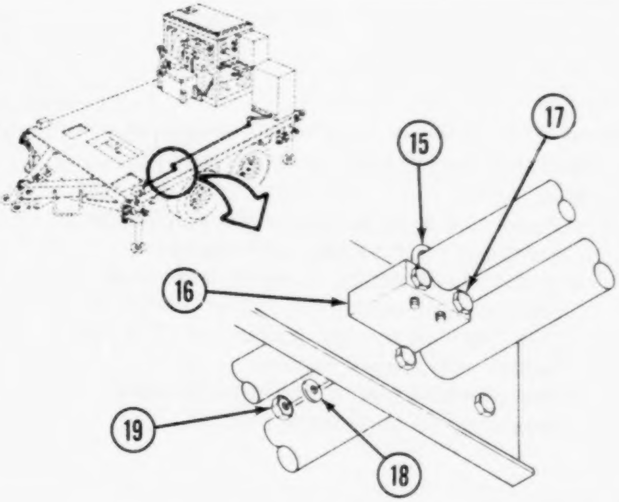


13. INSTALL FOUR NEW SELF-LOCKING NUTS AND WASHERS ON TWO CONDUIT CLAMP U-BOLTS.
    - Install two washers (13) and new self-locking nuts (14) on U-bolt (8). Use 9/16 inch socket with ratchet handle.
    - Repeat above installation step for other U-bolt.



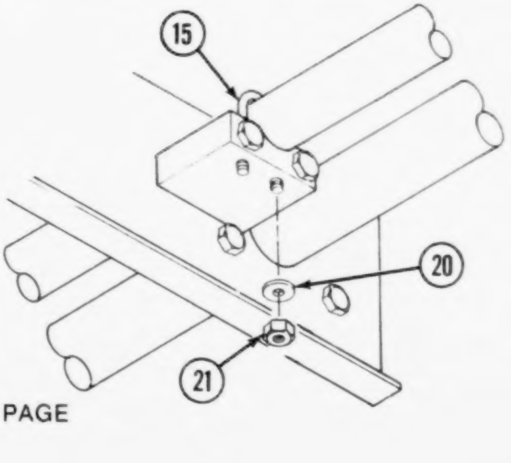
---

14. INSTALL FORWARD CONDUIT CLAMP AND U-BOLT ON CHASSIS.
    - Install U-bolt (15), forward clamp (16), two screws (17), washers (18), and new self-locking nuts (19) on chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle.



---

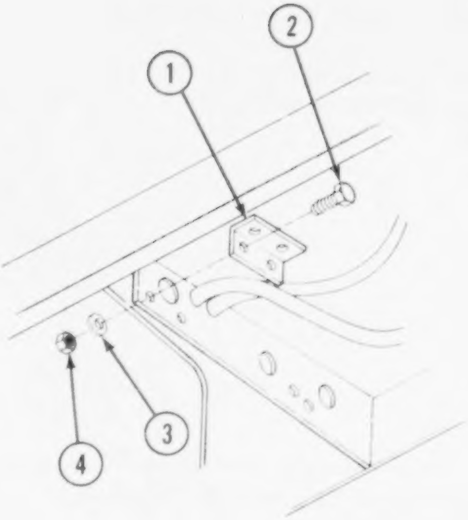
15. INSTALL TWO NEW SELF-LOCKING NUTS AND WASHERS ON FORWARD CONDUIT CLAMP U-BOLT.
    - Install two washers (20) and new self-locking nuts (21) on U-bolt (15). Use 9/16 inch box end wrench.



GO TO NEXT PAGE

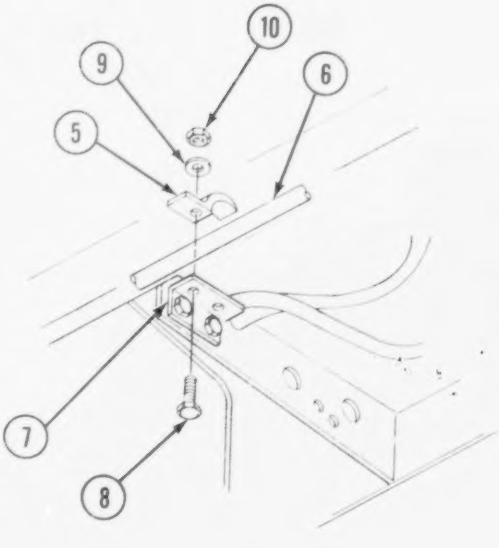
B. **INSTALLATION — Continued**

16. INSTALL TWO ANGLE BRACKETS ON CHASSIS.
    - Install bracket (1), two screws (2), washers (3), and new self-locking nuts (4) on chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle.
    - Repeat above installation step for other bracket.



---

17. INSTALL TWO PIPE STRAPS ON ANGLE BRACKETS.
    - Place pipe strap (5) over conduit (6) and on bracket (7), with mounting holes alined.
    - Install pipe strap (5), screw (8), washer (9), and new self-locking nut (10) on bracket (7). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle.
    - Repeat above installation steps for other pipe strap on other angle bracket.



NOTE

FOLLOW-ON MAINTENANCE:

Install Front Chassis Conduit Group. (See Front Chassis Conduit Group, Page 20-129.)
Install Wire No. 1 And Wire No. 2 Lead Assemblies. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Wire Bundle Assembly JB4. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Wire Bundle Assembly 2PB. (See Cable. Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Wire Bundle Assembly 1PB. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Launcher Wheel Solenoid Valve Cable Assembly P42. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Oscillator Solenoid Valve Cable Assembly P41. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Launcher Hookup Cable Assembly J9. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Close BITE Panel Door. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

END OF TASK

20-10 FRONT CHASSIS CONDUIT GROUP

DESCRIPTION

This task covers:
A. FRONT CENTER CONDUIT ASSEMBLY REMOVAL (p 20-131)
B. FRONT CENTER CONDUIT ASSEMBLY INSTALLATION (p 20-133)
C. FRONT CONDUIT ASSEMBLY REMOVAL (p 20-136)
D. FRONT CONDUIT ASSEMBLY INSTALLATION (p 20-143)

INITIAL SETUP

Tools and Special Tools:
General mechanic's tool kit
 5180-00-177-7033:
  No. 2 cross tip screwdriver
  7/16 inch box end wrench
  7/16 inch socket
  3/8 inch socket
  9/16 inch socket
  Ratchet handle
  10 inch adjustable wrench
15 inch adjustable wrench 5120-00-423-6728
10 inch pipe wrench (2) 5120-00-277-1485
No. 2 cross tip offset screwdriver
 5120-00-256-9014
Slip joint pliers 5120-00-278-0352
Goggles 4240-00-269-7912
12 inch adjustable wrench 5120-00-264-3796

Materials/Parts:
Sealing compound, Item 25, Appendix B
Self-locking nut (6) 5310-00-877-5797
Self-locking nut (4) 5310-00-959-1488
Self-locking nut (2) 5310-00-088-1251
Self-locking nut (2) 5310-00-959-7600

References:
TM 9-1095-205-10
TM 9-1095-205-20
CABLE, WIRE BUNDLE, AND LEAD
 ASSEMBLIES, Page 16-3
GEAR ACCESS COVER, Page 4-137
LAUNCHER POSITION POTENTIOMETER
 ELECTRICAL ASSEMBLY, Page 5-49
OSCILLATOR DRIVE, Page 5-5

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

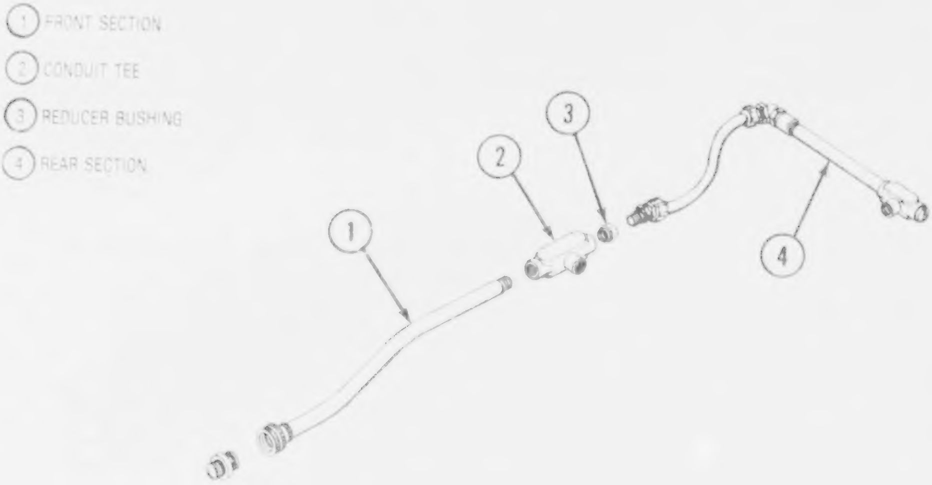
OVERVIEW

The front chassis conduit group consists of a front center conduit assembly and front conduit assembly. These assemblies are not supplied as parts. If you need a new assembly, see Appendix C, and assemble one. See:
9291510 front chassis conduit group.

GO TO NEXT PAGE

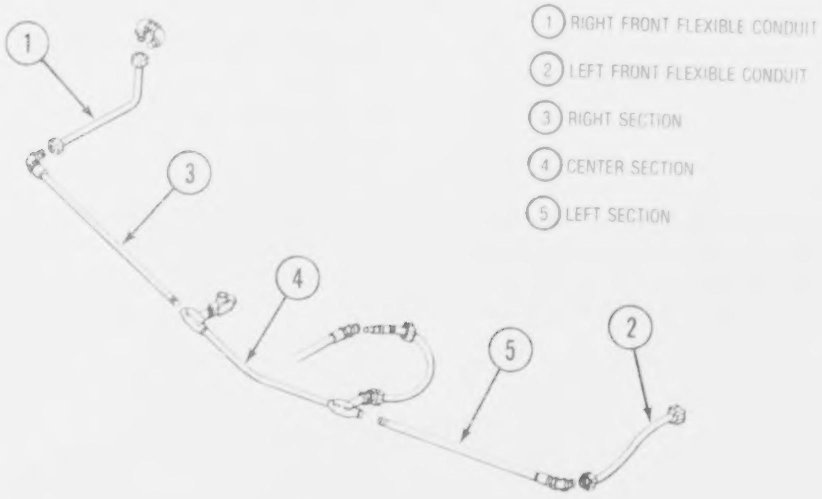
OVERVIEW — Continued

Use the following Front Center Conduit Assembly Locator to find parts of the front center conduit assembly.



Front Center Conduit Assembly Locator

Use the following Front Conduit Assembly Locator to find parts of the front conduit assembly.



Front Conduit Assembly Locator

A. FRONT CENTER CONDUIT ASSEMBLY REMOVAL

NOTE

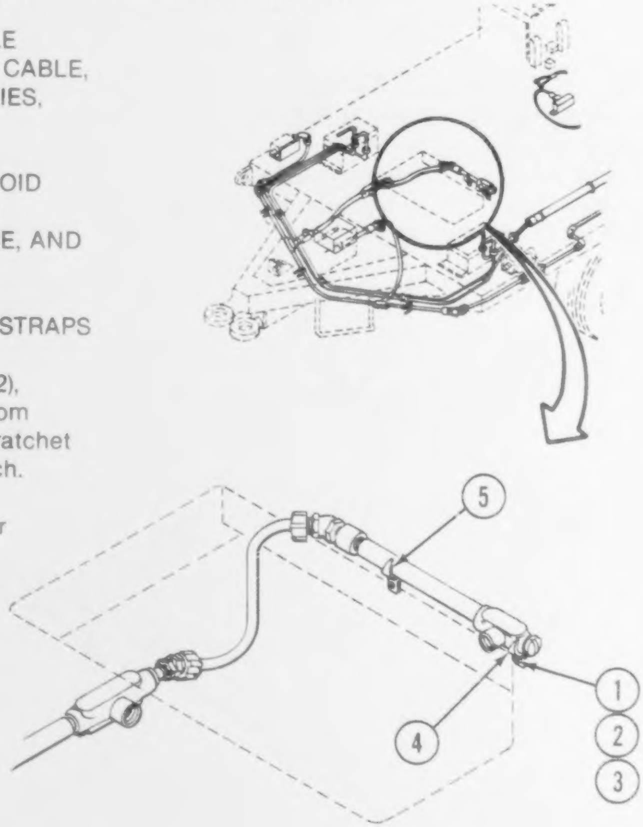
PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Release Hydraulic Pressure From Hydraulic Accumulator. (See TM 9-1095-205-20.)
Drain Hydraulic Reservoir. (See TM 9-1095-205-20.)
Extend Reach Tube. (See TM 9-1095-205-10.)
Open Swivel Access Door. (See TM 9-1095-205-10.)
Remove Gear Access Cover. (See Gear Access Cover, Page 4-137.)
Remove Oscillator Drive. (See Oscillator Drive, Page 5-5.)

1. REMOVE LAUNCHER HOOKUP CABLE ASSEMBLY J9 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

2. REMOVE LAUNCHER WHEEL SOLENOID VALVE CABLE ASSEMBLY P42 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

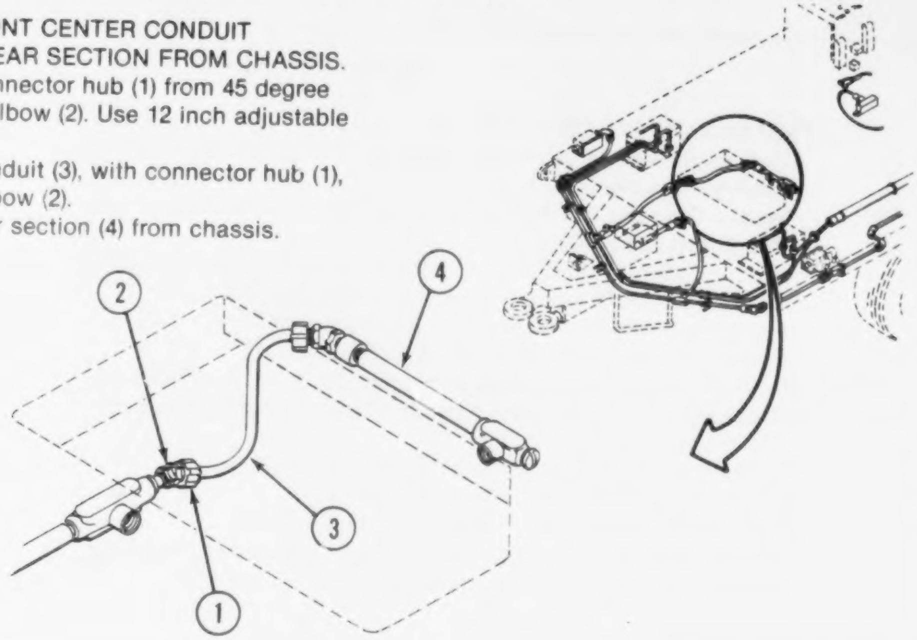
3. REMOVE TWO CONDUIT RETAINING STRAPS FROM CHASSIS.
   - Remove self-locking nut (1), screw (2), washer (3), and retaining strap (4) from chassis. Use 7/16 inch socket with ratchet handle and 7/16 inch box end wrench. Discard self-locking nut.
   - Repeat above removal step for other retaining strap (5).



GO TO NEXT PAGE

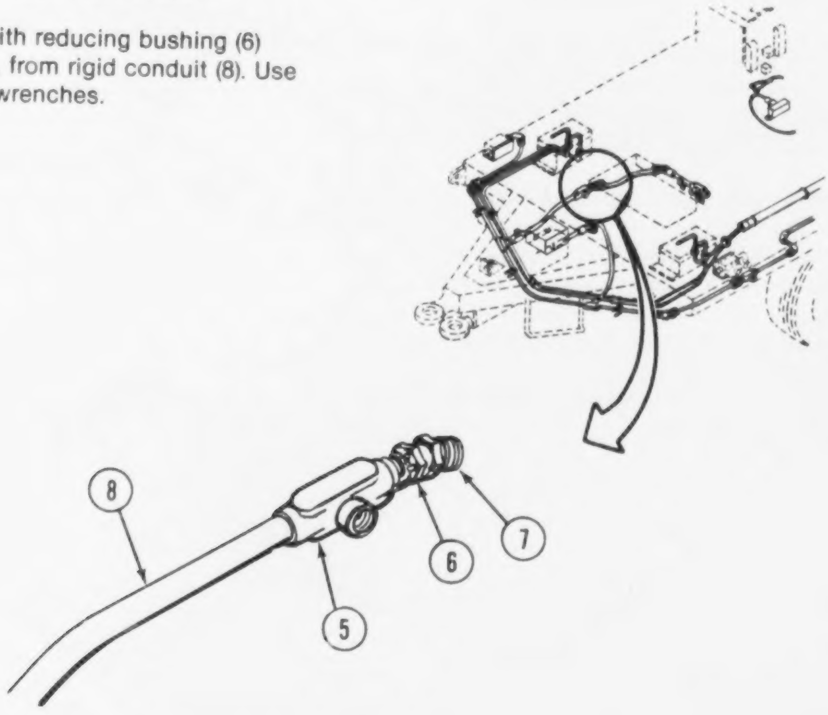
A. FRONT CENTER CONDUIT ASSEMBLY REMOVAL — Continued

4. REMOVE FRONT CENTER CONDUIT ASSEMBLY REAR SECTION FROM CHASSIS.
   - Remove connector hub (1) from 45 degree connector elbow (2). Use 12 inch adjustable wrench.
   - Remove conduit (3), with connector hub (1), from 45° elbow (2).
   - Remove rear section (4) from chassis.

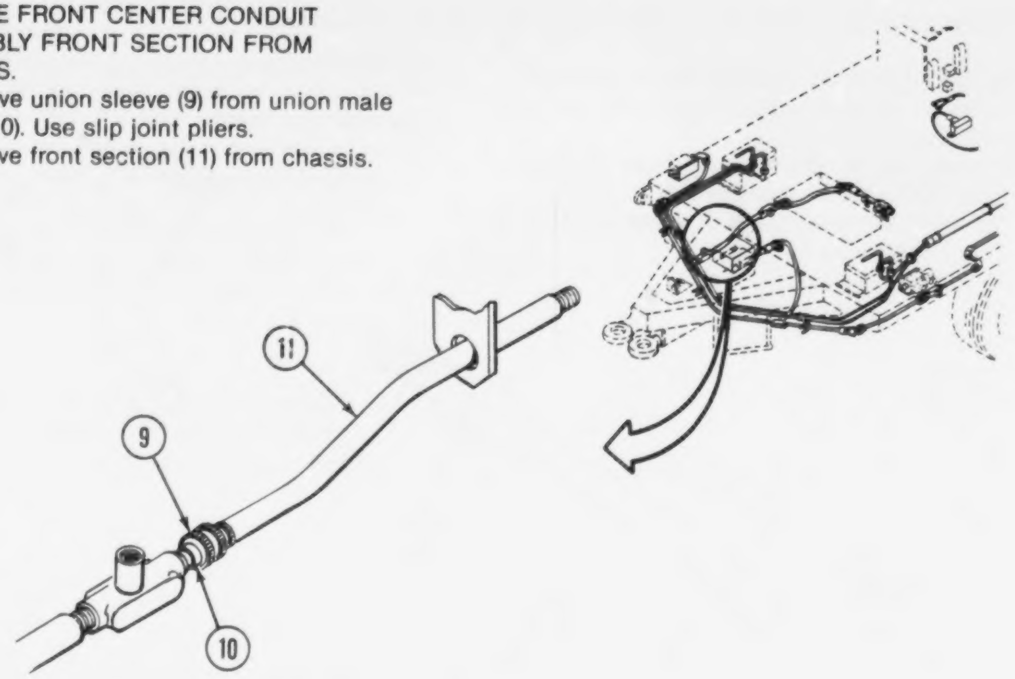


---

5. REMOVE CONDUIT TEE FROM RIGID CONDUIT.
   - Remove tee (5), with reducing bushing (6) and 45° elbow (7), from rigid conduit (8). Use two 10 inch pipe wrenches.

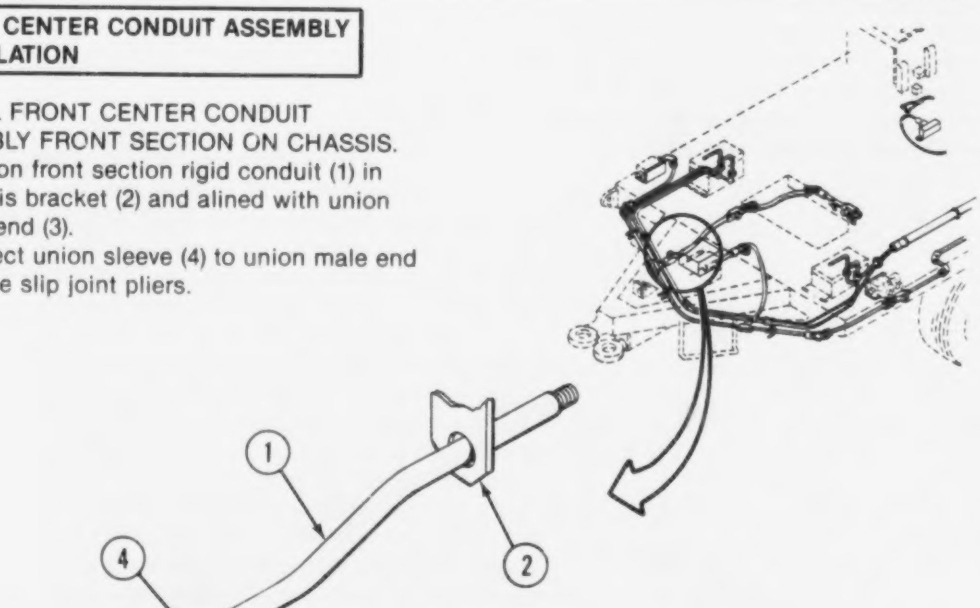


6. REMOVE FRONT CENTER CONDUIT ASSEMBLY FRONT SECTION FROM CHASSIS.
   - Remove union sleeve (9) from union male end (10). Use slip joint pliers.
   - Remove front section (11) from chassis.



B. FRONT CENTER CONDUIT ASSEMBLY INSTALLATION

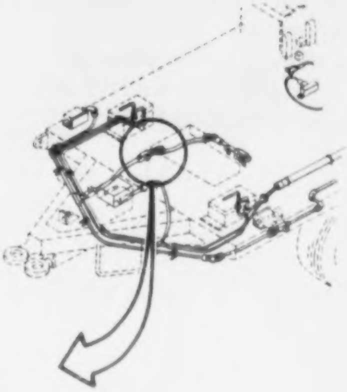
1. INSTALL FRONT CENTER CONDUIT ASSEMBLY FRONT SECTION ON CHASSIS.
   - Position front section rigid conduit (1) in chassis bracket (2) and alined with union male end (3).
   - Connect union sleeve (4) to union male end (3). Use slip joint pliers.

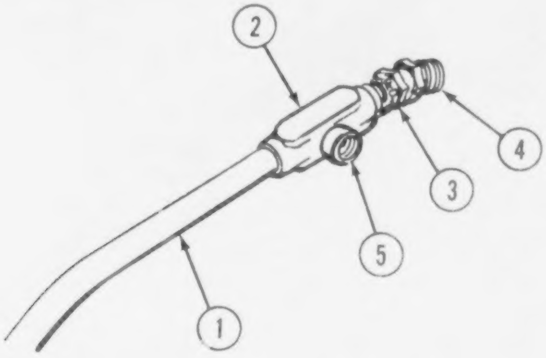


GO TO NEXT PAGE

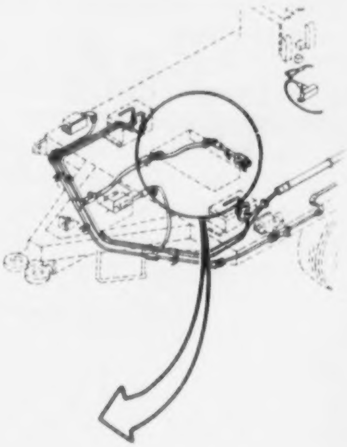
B. FRONT CENTER CONDUIT ASSEMBLY INSTALLATION — Continued

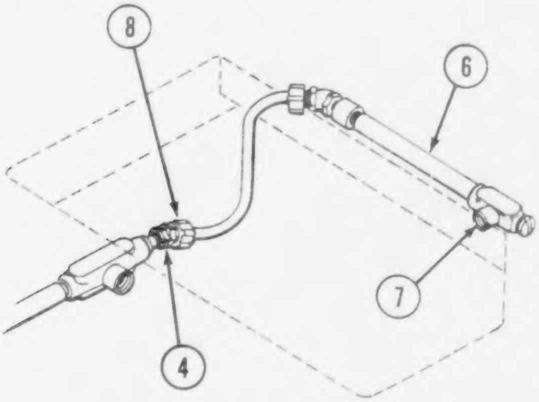
2. INSTALL CONDUIT TEE ON RIGID CONDUIT.
   - Apply sealing compound to threads on rigid conduit (1).
   - Install tee (2), with reducing bushing (3) and 45° elbow (4), on rigid conduit (1) so tee opening (5) faces to left of dispenser. Use two 10 inch pipe wrenches.





3. INSTALL FRONT CENTER CONDUIT ASSEMBLY REAR SECTION ON CHASSIS.
   - Position rear section (6) on chassis with tee opening (7) toward front of chassis.
   - Install connector hub (8) on 45° elbow (4). Use 12 inch adjustable wrench.

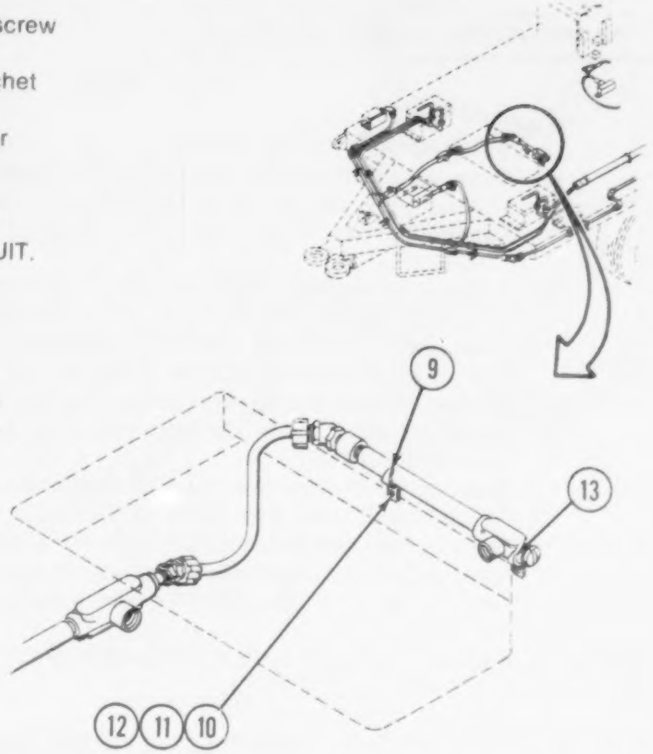




4. INSTALL TWO CONDUIT RETAINING STRAPS ON CHASSIS.
   - Install retaining strap (9), washer (10), screw (11), and new self-locking nut (12) on chassis. Use 7/16 inch socket with ratchet handle and 7/16 inch box end wrench.
   - Repeat above installation step for other strap (13).

5. INSTALL LAUNCHER WHEEL SOLENOID VALVE CABLE ASSEMBLY P42 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

6. INSTALL LAUNCHER HOOKUP CABLE ASSEMBLY J9 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)



NOTE

FOLLOW-ON MAINTENANCE:

Install Oscillator Drive. (See Oscillator Drive, Page 5-5.)
Fill Hydraulic Reservoir. (See TM 9-1095-205-20.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)
Place Hydraulic System In Service. (See TM 9-1095-205-20.)
Stop Engine. (See TM 9-1095-205-20.)
Adjust And Test Launcher Position Potentiometer. (See Launcher Position Potentiometer Electrical Assembly, Page 5-49.)
Install Gear Access Cover. (See Gear Access Cover, Page 4-137.)
Close Swivel Joint Access Door. (See TM 9-1095-205-10.)
Stow Reach Tube. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Disconnect And Stow Operator Control Box And Cable. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

20-10 FRONT CHASSIS CONDUIT GROUP — Continued

C. FRONT CONDUIT ASSEMBLY REMOVAL

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Release Hydraulic Pressure From Hydraulic Accumulator. (See TM 9-1095-205-20.)
Drain Hydraulic Reservoir. (See TM 9-1095-205-20.)
Extend Reach Tube. (See TM 9-1095-205-10.)
Open Swivel Joint Access Door. (See TM 9-1095-205-10.)
Remove Gear Access Cover. (See Gear Access Cover, Page 4-137.)
Remove Oscillator Drive. (See Oscillator Drive, Page 5-5.)

1. REMOVE LAUNCHER HOOKUP CABLE ASSEMBLY J9 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

2. REMOVE LAUNCHER WHEEL SOLENOID VALVE CABLE ASSEMBLY P42 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

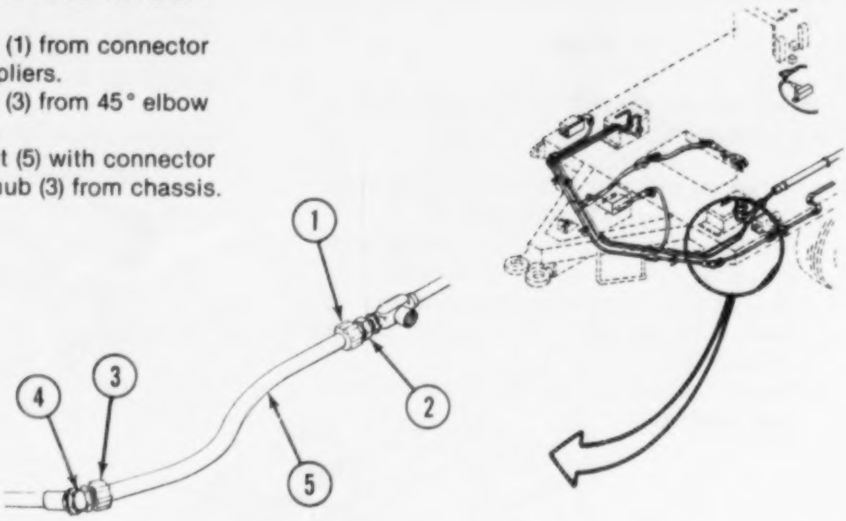
3. REMOVE OSCILLATOR SOLENOID VALVE CABLE ASSEMBLY P41 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

4. REMOVE WIRE BUNDLE ASSEMBLY JB4 FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

5. REMOVE FRONT WIRE BUNDLE ASSEMBLY 2PB FROM CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

6. REMOVE FRONT CENTER CONDUIT ASSEMBLY FROM CHASSIS. (SEE FRONT CHASSIS CONDUIT GROUP, PAGE 20-131.)

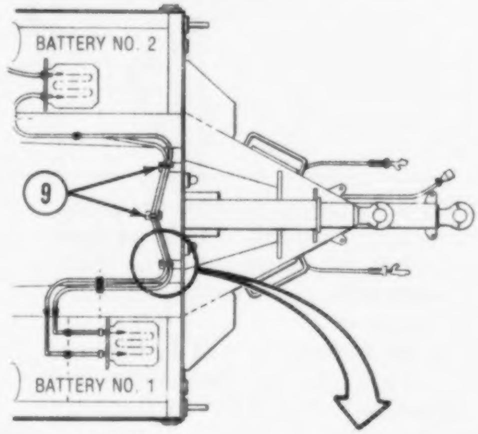
7. REMOVE LEFT FRONT FLEXIBLE CONDUIT FROM CHASSIS.
   - Remove connector hub (1) from connector body (2). Use slip joint pliers.
   - Remove connector hub (3) from 45° elbow (4). Use slip joint pliers.
   - Remove flexible conduit (5) with connector hub (1) and connector hub (3) from chassis.



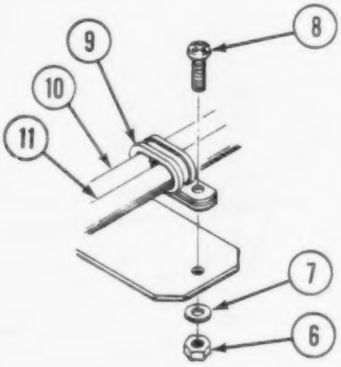
NOTE

Three loop clamps with Battery No. 1 coolant hoses are removed the same way.

8. REMOVE THREE LOOP CLAMPS WITH BATTERY NO. 1 COOLANT HOSES FROM CHASSIS.
   - Remove self-locking nut (6), washer (7), screw (8), and loop clamp (9), with hose (10) and hose (11), from chassis. Use No. 2 cross tip offset screwdriver and 3/8 inch socket with ratchet handle. Discard self-locking nut.
   - Repeat above removal step for other two loop clamps (9).



BOTTOM VIEW



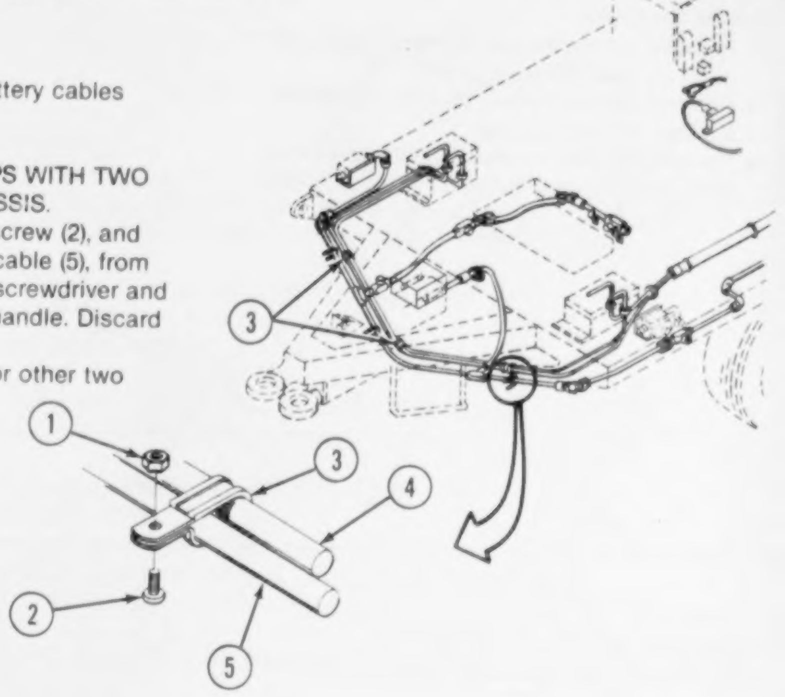
GO TO NEXT PAGE

C. FRONT CONDUIT ASSEMBLY REMOVAL — Continued

NOTE

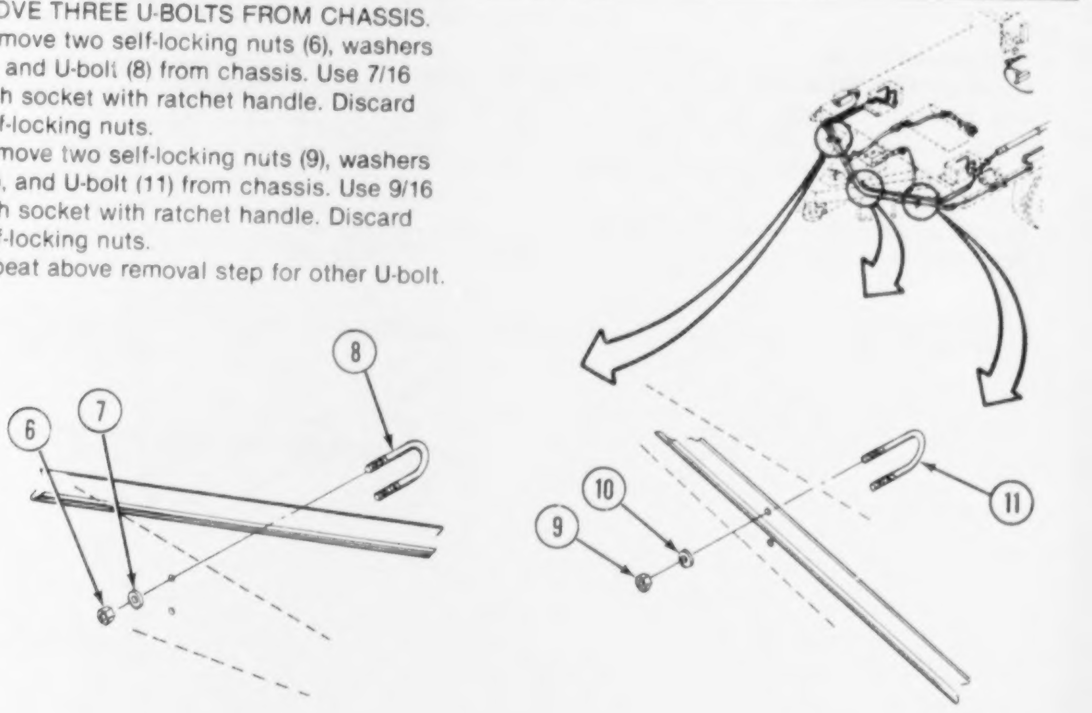
Three loop clamps with two battery cables are removed the same way.

9. REMOVE THREE LOOP CLAMPS WITH TWO BATTERY CABLES FROM CHASSIS.
   - Remove self-locking nut (1), screw (2), and clamp (3), with cable (4) and cable (5), from chassis. Use No. 2 cross tip screwdriver and 3/8 inch socket with ratchet handle. Discard self-locking nut.
   - Repeat above removal step for other two loop clamps (3).

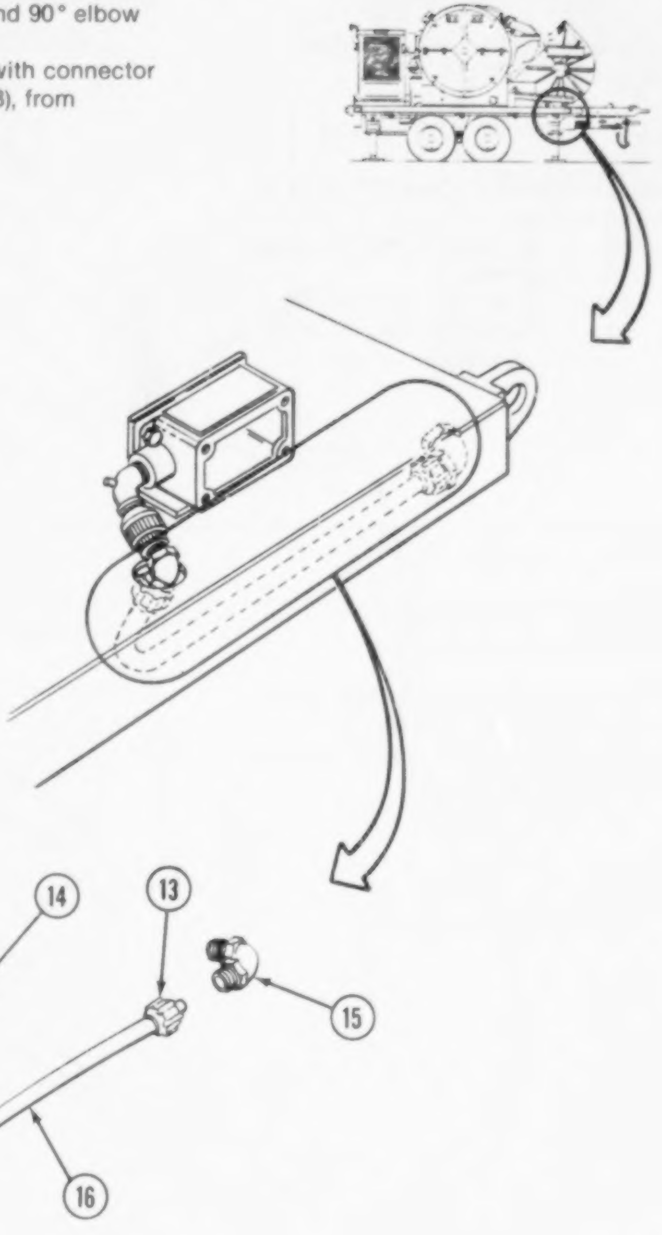


---

10. REMOVE THREE U-BOLTS FROM CHASSIS.
    - Remove two self-locking nuts (6), washers (7), and U-bolt (8) from chassis. Use 7/16 inch socket with ratchet handle. Discard self-locking nuts.
    - Remove two self-locking nuts (9), washers (10), and U-bolt (11) from chassis. Use 9/16 inch socket with ratchet handle. Discard self-locking nuts.
    - Repeat above removal step for other U-bolt.



11. REMOVE RIGHT FRONT FLEXIBLE CONDUIT FROM CHASSIS.
    - Remove connector hub (12) and connector hub (13) from 90° elbow (14) and 90° elbow (15). Use slip joint pliers.
    - Remove flexible conduit (16), with connector hub (12) and connector hub (13), from chassis.

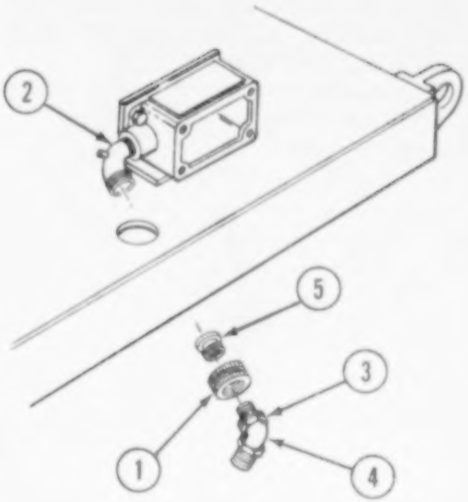


GO TO NEXT PAGE

C. FRONT CONDUIT ASSEMBLY REMOVAL — Continued

NOTE

Do not remove 90° elbow unless required for maintenance.

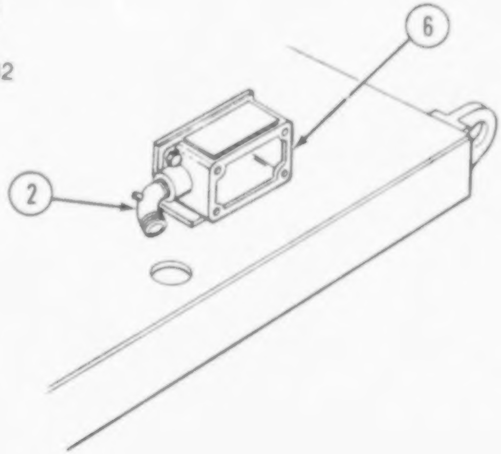


12. REMOVE 90° ELBOW FROM 90° RIGID CONDUIT UNION.
    - Remove union sleeve (1) from 90° union (2). Use slip joint pliers.
    - Loosen lock nut (3). Use slip joint pliers and 10 inch adjustable wrench.
    - Remove 90° elbow (4) from union female end (5) and union sleeve (1). Use slip joint pliers and 10 inch adjustable wrench.

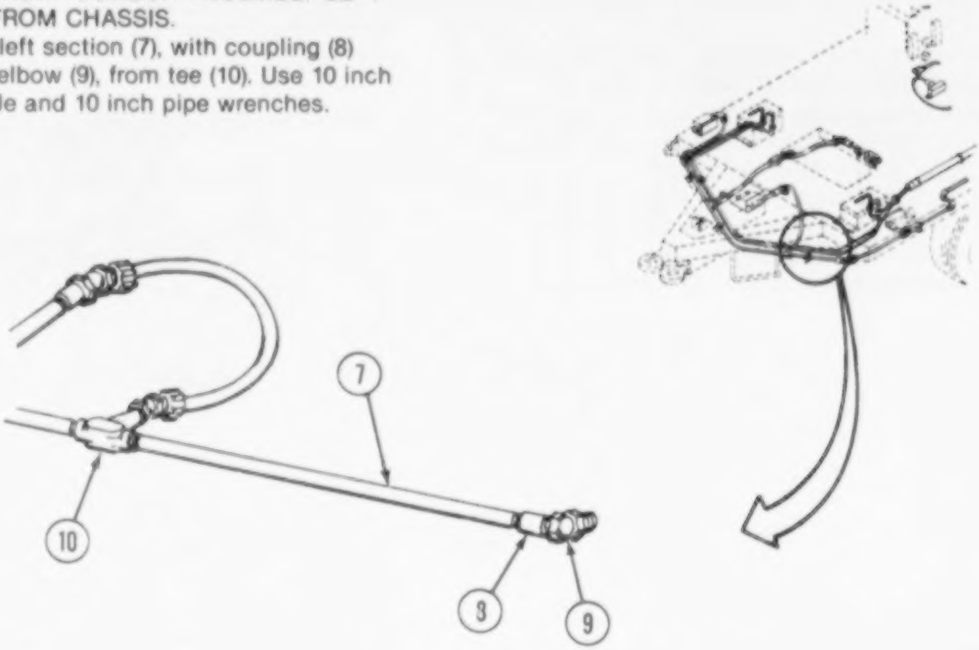
NOTE

Do not remove 90° rigid conduit union unless required for maintenance.

13. REMOVE 90° RIGID CONDUIT UNION FROM PUSHBUTTON CONTROL BOX PB2.
    - Remove 90° union (2) from Control Box PB2 (6). Use 10 inch pipe wrench.

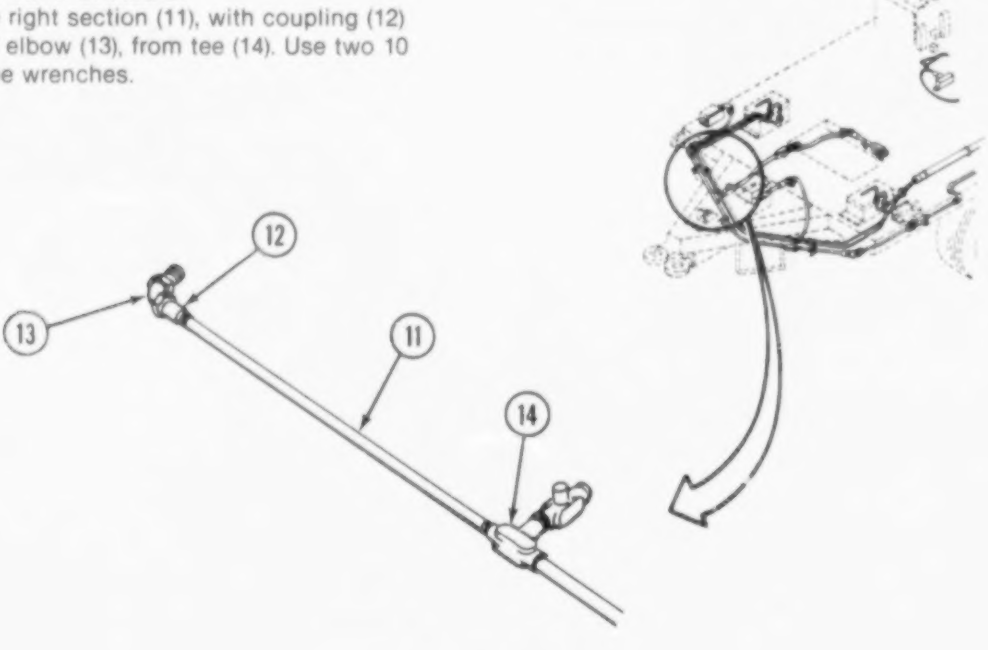


14. REMOVE FRONT CONDUIT ASSEMBLY LEFT SECTION FROM CHASSIS.
    - Remove left section (7), with coupling (8) and 45° elbow (9), from tee (10). Use 10 inch adjustable and 10 inch pipe wrenches.



---

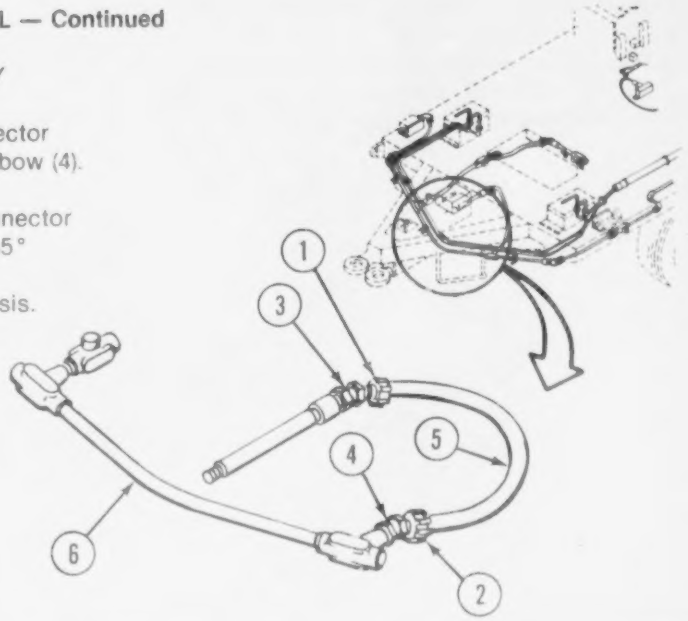
15. REMOVE FRONT CONDUIT ASSEMBLY RIGHT SECTION FROM CHASSIS.
    - Remove right section (11), with coupling (12) and 90° elbow (13), from tee (14). Use two 10 inch pipe wrenches.



GO TO NEXT PAGE

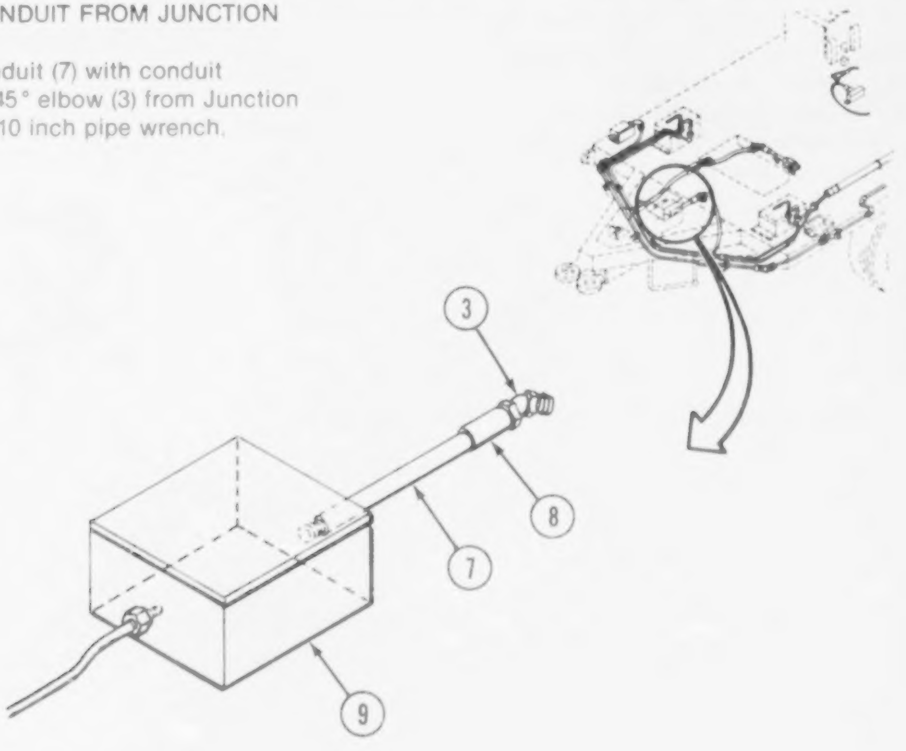
C. FRONT CONDUIT ASSEMBLY REMOVAL — Continued

16. REMOVE FRONT CONDUIT ASSEMBLY CENTER SECTION FROM CHASSIS.
    - Remove connector hub (1) and connector hub (2) from 45° elbow (3) and 45° elbow (4). Use 15 inch adjustable wrench.
    - Remove flexible conduit (5), with connector hub (1) and connector hub (2), from 45° elbow (3) and 45° elbow (4).
    - Remove center section (6) from chassis.



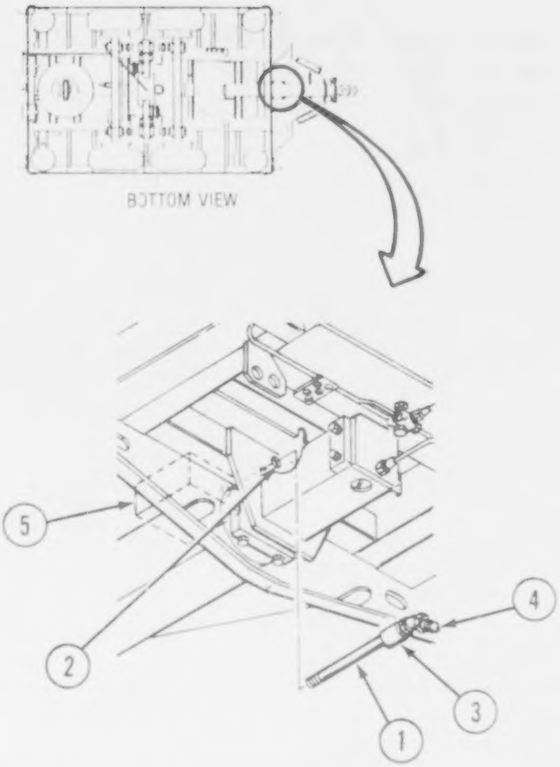
---

17. REMOVE RIGID CONDUIT FROM JUNCTION BOX JB4.
    - Remove rigid conduit (7) with conduit coupling (8) and 45° elbow (3) from Junction Box JB4 (9). Use 10 inch pipe wrench.



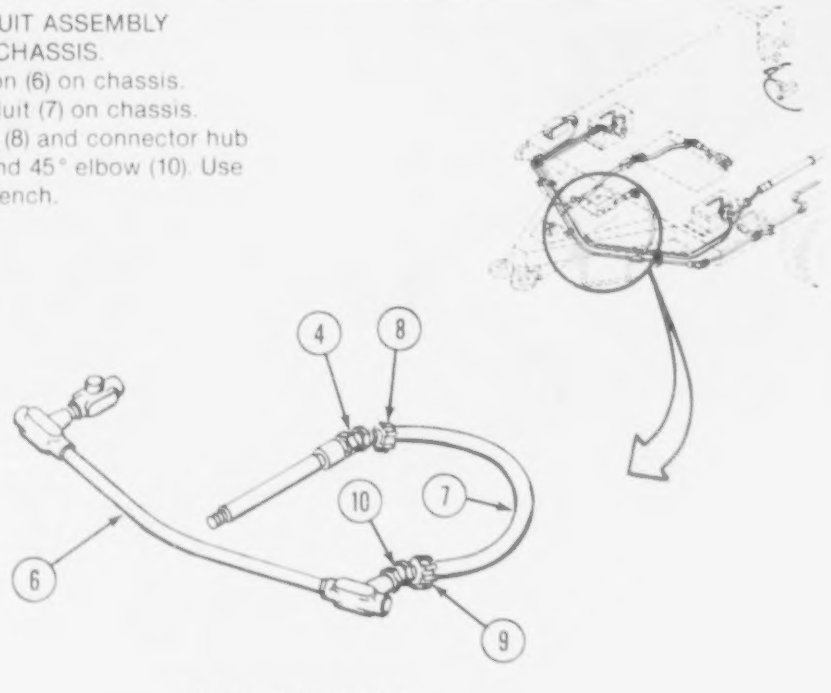
D. FRONT CONDUIT ASSEMBLY INSTALLATION

1. INSTALL RIGID CONDUIT ON JUNCTION BOX JB4.
   - Apply sealing compound to threads of rigid conduit (1).
   - Position rigid conduit (1) through hole (2) in chassis.
   - Install rigid conduit (1), with conduit coupling (3) and 45° elbow (4), on Junction Box JB4 (5). Use 10 inch pipe wrench.



---

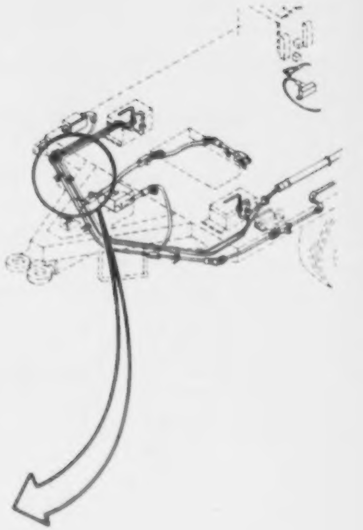
2. INSTALL FRONT CONDUIT ASSEMBLY CENTER SECTION ON CHASSIS.
   - Position center section (6) on chassis.
   - Position flexible conduit (7) on chassis.
   - Install connector hub (8) and connector hub (9) on 45° elbow (4) and 45° elbow (10). Use 15 inch adjustable wrench.

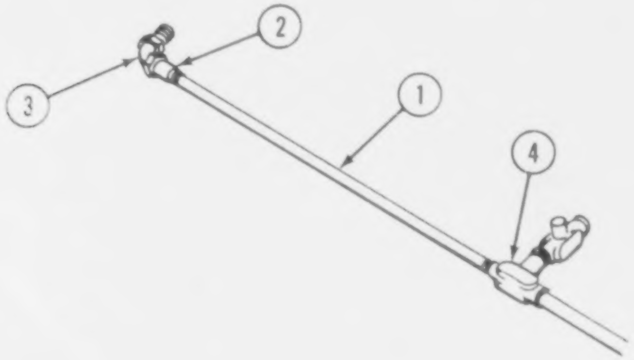


GO TO NEXT PAGE

D. FRONT CONDUIT ASSEMBLY INSTALLATION — Continued

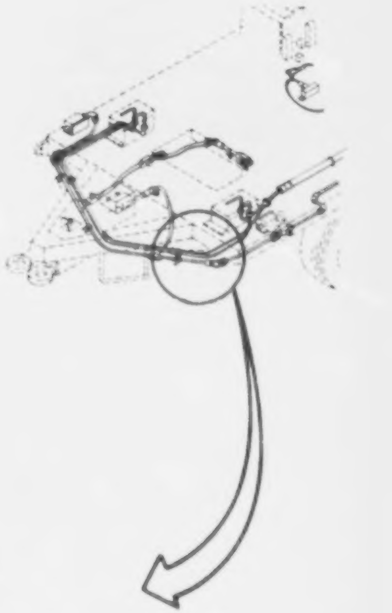
3. INSTALL FRONT CONDUIT ASSEMBLY RIGHT SECTION ON CHASSIS.
   - Apply sealing compound to threads of right section (1).
   - Install right section (1) with conduit coupling (2) and 90° elbow (3), on tee (4). Use two 10 inch pipe wrenches.

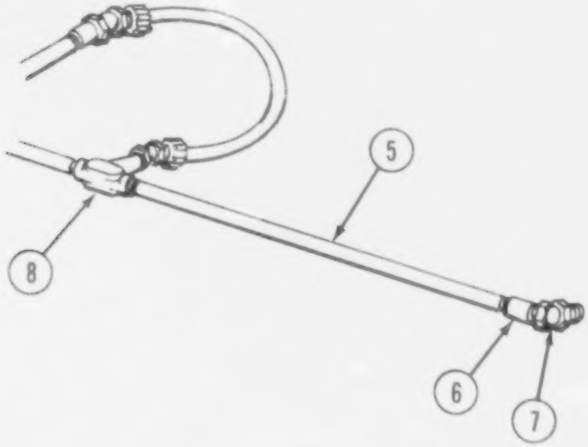




---

4. INSTALL FRONT CONDUIT ASSEMBLY LEFT SECTION ON CHASSIS.
   - Apply sealing compound to threads of left section (5).
   - Install left section (5), with conduit coupling (6) and 45° elbow (7), on tee (8). Use 10 inch adjustable and 10 inch pipe wrenches.

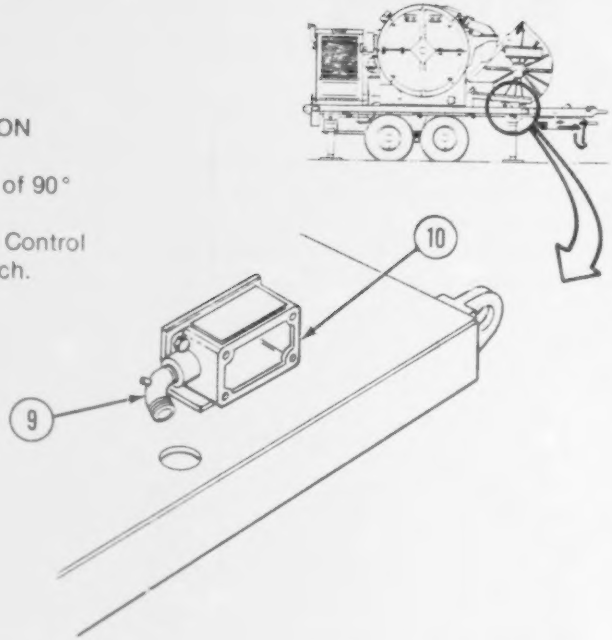




NOTE

If 90° rigid conduit union was not removed, go to step 6.

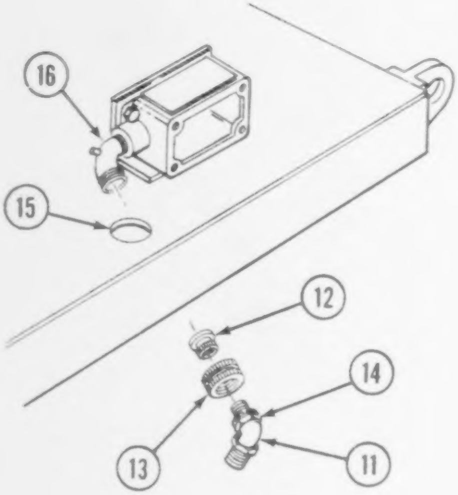
5. INSTALL 90° RIGID CONDUIT UNION ON PUSHBUTTON CONTROL BOX PB2.
   - Apply sealing compound to threads of 90° rigid conduit union (9).
   - Install 90° rigid conduit union (9) on Control Box PB2 (10). Use 10 inch pipe wrench.



NOTE

If 90° elbow was not removed, go to step 7.

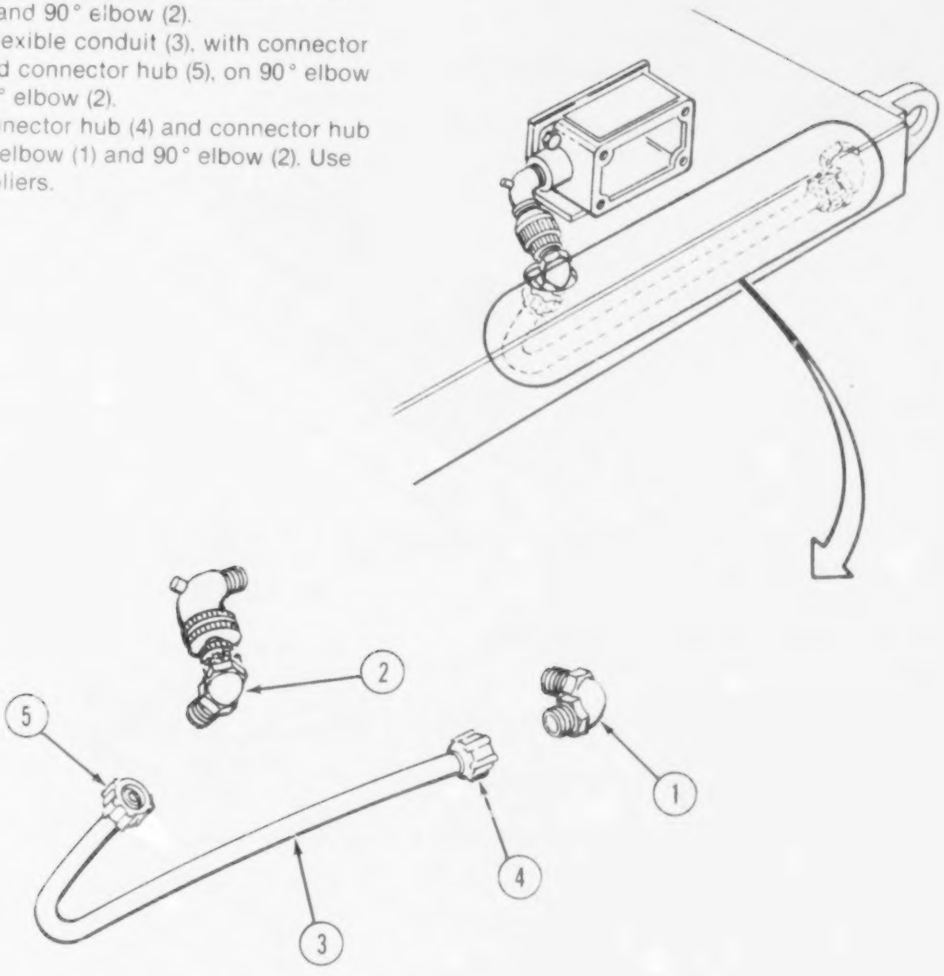
6. INSTALL 90° ELBOW ON 90° RIGID CONDUIT UNION.
   - Apply sealing compound to threads of 90° elbow (11).
   - Connect 90° elbow (11) to union female end (12) and union sleeve (13). Use slip joint pliers and 10 inch adjustable wrench.
   - Tighten lock nut (14). Use slip joint pliers and 10 inch adjustable wrench.
   - Position 90° elbow (11) through hole (15) in chassis.
   - Install union sleeve (13) on 90° union elbow end (16). Use slip joint pliers.



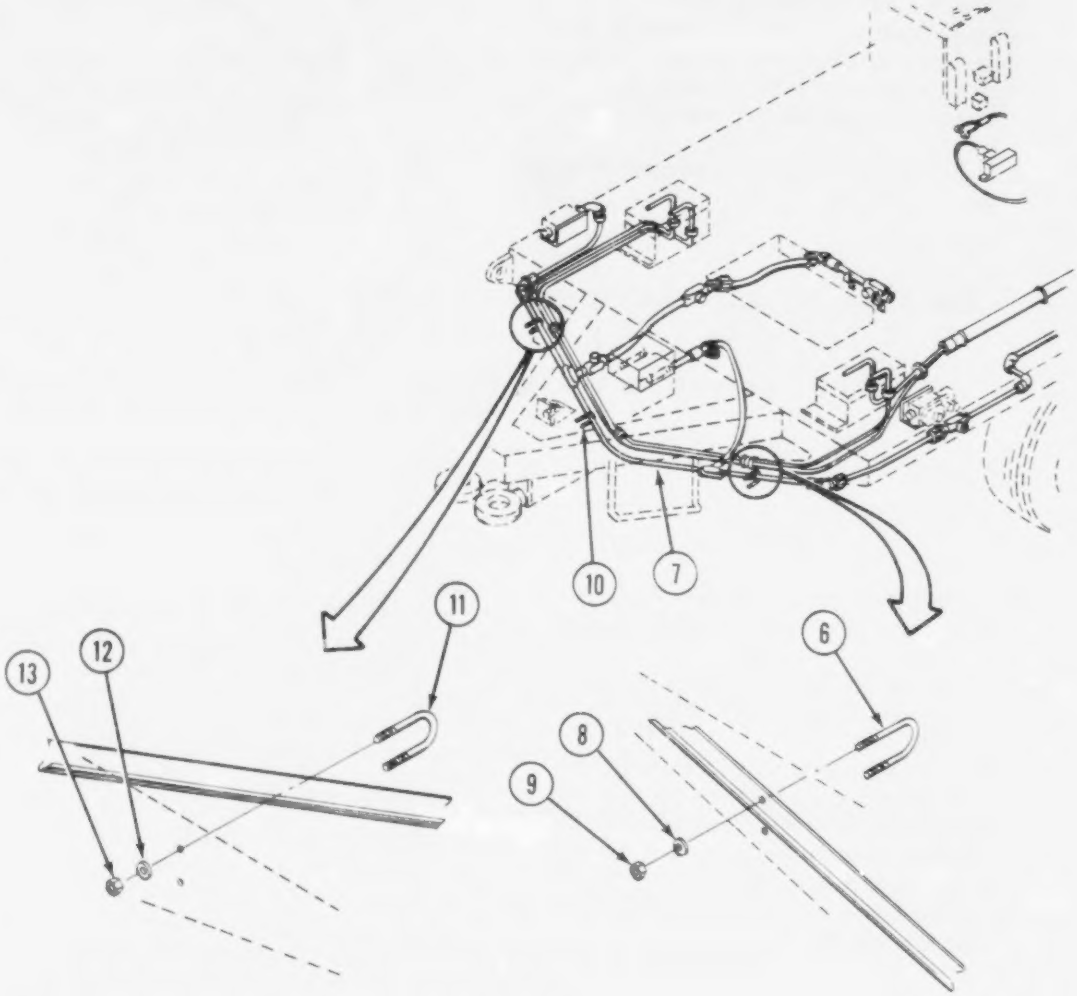
GO TO NEXT PAGE

D. FRONT CONDUIT ASSEMBLY INSTALLATION — Continued

7. INSTALL RIGHT FRONT FLEXIBLE CONDUIT ON CHASSIS.
   - Apply sealing compound to threads of 90° elbow (1) and 90° elbow (2).
   - Position flexible conduit (3), with connector hub (4) and connector hub (5), on 90° elbow (1) and 90° elbow (2).
   - Install connector hub (4) and connector hub (5) on 90° elbow (1) and 90° elbow (2). Use slip joint pliers.

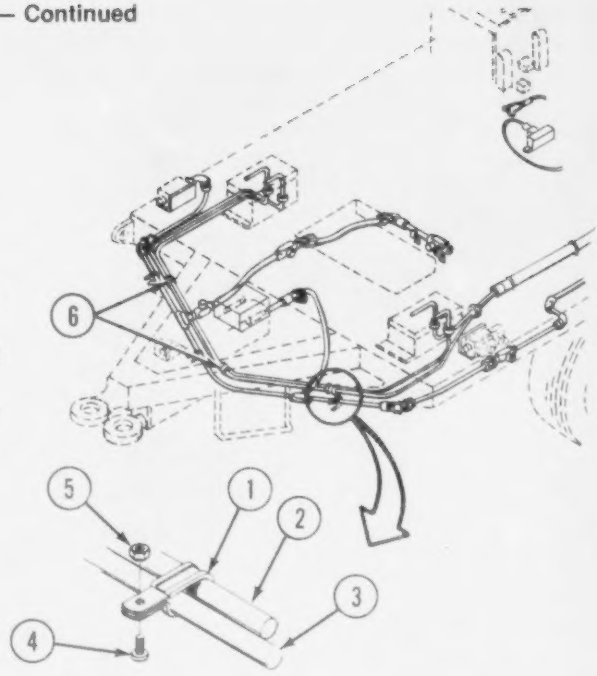


8. INSTALL THREE U-BOLTS ON CHASSIS.
   - Position first U-bolt (6) on front conduit assembly (7) and chassis, with mounting holes alined.
   - Install first U-bolt (6), two washers (8), and two new self-locking nuts (9) on chassis. Use 9/16 inch socket with ratchet handle.
   - Repeat above installation steps for second U-bolt (10).
   - Position third U-bolt (11) on front conduit assembly (7) and chassis, with mounting holes alined.
   - Install third U-bolt (11), two washers (12), and new self-locking nuts (13) on chassis. Use 7/16 inch socket with ratchet handle.



GO TO NEXT PAGE

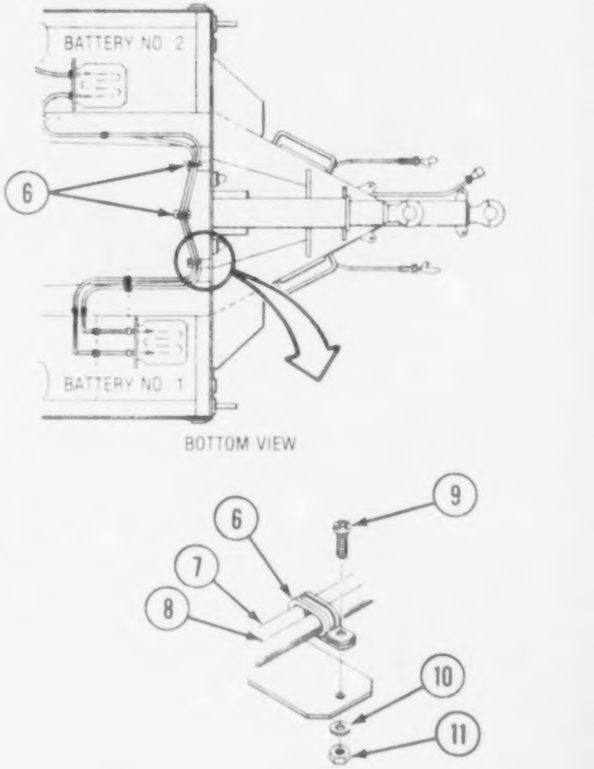
D. FRONT CONDUIT ASSEMBLY INSTALLATION — Continued



NOTE

Three loop clamps with two battery cables are installed the same way.

9. INSTALL THREE LOOP CLAMPS WITH TWO BATTERY CABLES ON CHASSIS.
   - Install loop clamp (1), with cable (2) and cable (3), screw (4) and new self-locking nut (5) on chassis. Use No. 2 cross tip screwdriver and 3/8 inch socket with ratchet handle.
   - Repeat above installation step for other two loop clamps (6).

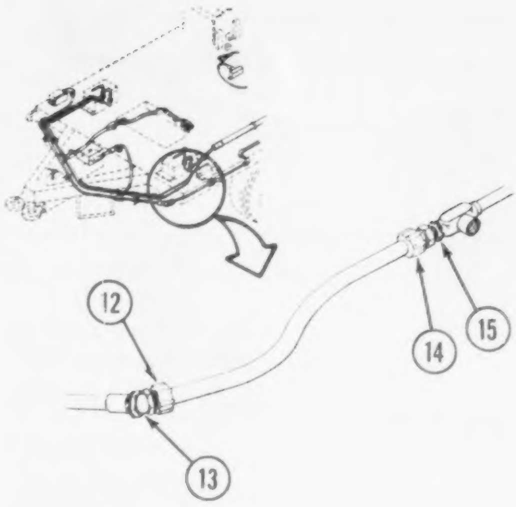


NOTE

Three loop clamps with Battery No. 1 coolant hoses are installed the same way.

10. INSTALL THREE LOOP CLAMPS WITH BATTERY NO. 1 COOLANT HOSES ON CHASSIS.
    - Install loop clamp (6), with hose (7) and hose (8), screw (9), washer (10), and new self-locking nut (11) on chassis. Use No. 2 cross tip offset screwdriver and 3/8 inch socket with ratchet handle.
    - Repeat above installation step for other two loop clamps (6).

11. INSTALL LEFT FRONT FLEXIBLE CONDUIT ON CHASSIS.
    - Install connector hub (12) on 45° elbow (13). Use slip joint pliers.
    - Install connector hub (14) on connector body (15). Use slip joint pliers.
12. INSTALL FRONT CONDUIT ASSEMBLY CENTER SECTION ON CHASSIS. (SEE FRONT CHASSIS CONDUIT GROUP, PAGE 20-143.)
13. INSTALL WIRE BUNDLE ASSEMBLY 2PB IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)
14. INSTALL WIRE BUNDLE ASSEMBLY JB4 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)



15. INSTALL OSCILLATOR SOLENOID VALVE CABLE ASSEMBLY P41 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)
16. INSTALL LAUNCHER WHEEL SOLENOID VALVE CABLE ASSEMBLY P42 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)
17. INSTALL LAUNCHER HOOKUP CABLE ASSEMBLY J9 IN CONDUIT. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

NOTE

FOLLOW-ON MAINTENANCE:

Install Oscillator Drive. (See Oscillator Drive, Page 5-5.)
Fill Hydraulic Reservoir. (See TM 9-1095-205-20.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)
Place Hydraulic System In Service. (See TM 9-1095-205-20.)
Stop Engine. (See TM 9-1095-205-20.)
Adjust And Test Launcher Position Potentiometer. (See Launcher Position Potentiometer Electrical Assembly, Page 5-49.)
Install Gear Access Cover. (See Gear Access Cover, Page 4-137.)
Close Swivel Joint Access Door. (See TM 9-1095-205-10.)
Stow Reach Tube. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Disconnect And Stow Operator Control Box And Cable. (See TM 9-1095-205-10.)

END OF TASK

20-11 REAR LOWER CHASSIS CONDUIT GROUP

DESCRIPTION

This task covers: A. REMOVAL (p 20-151)
B. INSTALLATION (p 20-153)

INITIAL SETUP

Tools and Special Tools:
General mechanic's tool kit
5180-00-177-7033:
7/16 inch box end wrench
7/16 inch socket
10 inch extension
Ratchet handle
10 inch pipe wrench (2) 5120-00-277-1461
Goggles 4240-00-269-7912

Materials/Parts:
Self-locking nut (2) 5310-00-959-7600
Self-locking nut (4) 5310-00-088-1251

Personnel Required:
Electrical repairer
Helper

References:
TM 9-1095-205-10
TM 9-1095-205-20
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, Page 16-3

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

OVERVIEW

Conduit groups are not supplied as parts. If you need a new conduit group, see Appendix C, and assemble one. See:
9291511 rear lower chassis conduit group.

Rear lower chassis conduit group can be fully assembled before installation on chassis.

A. REMOVAL

NOTE

PRELIMINARY PROCEDURES:
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Open BITE Panel Door. (See TM 9-1095-205-10.)
Unstow Spare Wheel And Tire. (See TM 9-1095-205-10.)

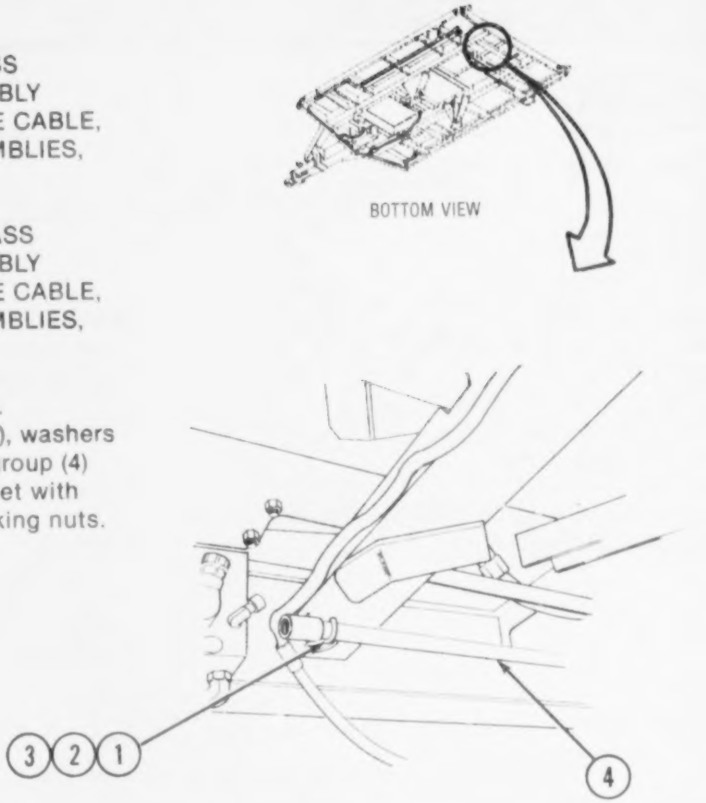
GO TO NEXT PAGE

A. REMOVAL — Continued

1. REMOVE LEFT MAGAZINE BYPASS SOLENOID VALVE CABLE ASSEMBLY P43/P43A FROM DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

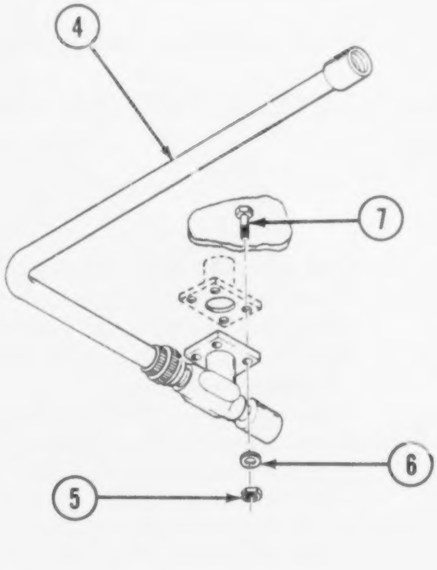
2. REMOVE RIGHT MAGAZINE BYPASS SOLENOID VALVE CABLE ASSEMBLY P44/P44A FROM DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

3. REMOVE U-BOLT FROM CHASSIS.
   - Remove two self-locking nuts (1), washers (2), and U-bolt (3) from conduit group (4) and chassis. Use 7/16 inch socket with ratchet handle. Discard self-locking nuts.



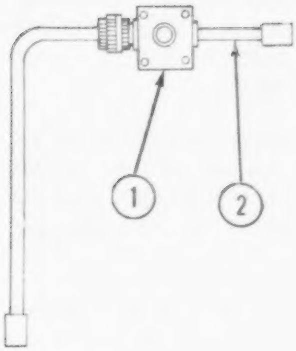
---

4. REMOVE CONDUIT GROUP FROM CHASSIS.
   - Remove four self-locking nuts (5), washers (6), screws (7), and conduit group (4) from chassis. Use 7/16 inch box end wrench and 7/16 inch socket with 10 inch extension and ratchet handle. Use helper. Discard self-locking nuts.



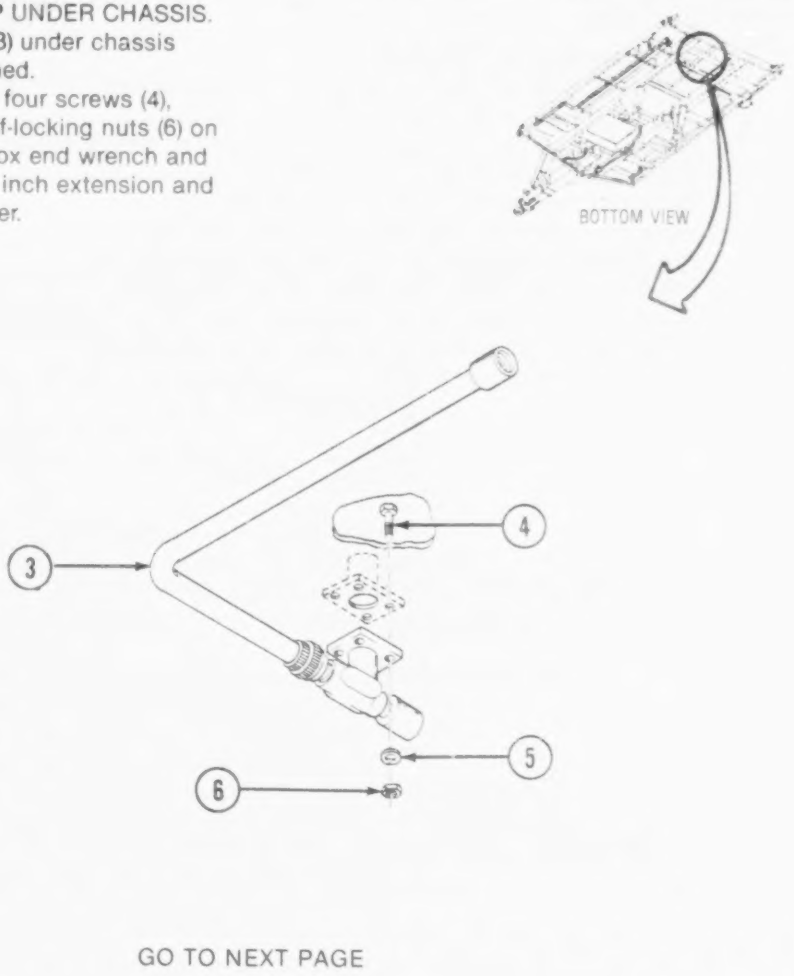
B. INSTALLATION

1. PREPARE CONDUIT GROUP FOR INSTALLATION ON CHASSIS.
   - Check that two sides of conduit hub (1) are parallel to conduit (2), and adjust as needed. Use two 10 inch pipe wrenches.



---

2. INSTALL CONDUIT GROUP UNDER CHASSIS.
   - Position conduit group (3) under chassis with mounting holes alined.
   - Install conduit group (3), four screws (4), washers (5), and new self-locking nuts (6) on chassis. Use 7/16 inch box end wrench and 7/16 inch socket with 10 inch extension and ratchet handle. Use helper.



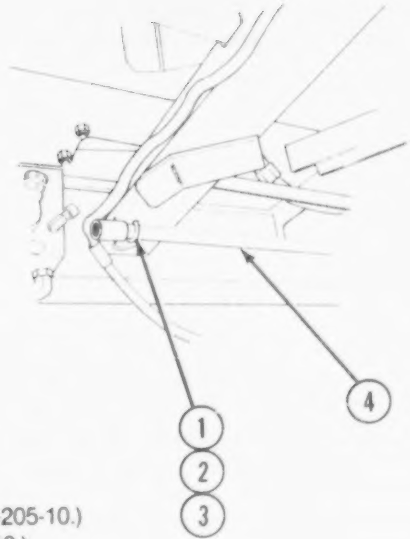
GO TO NEXT PAGE

B. INSTALLATION — Continued

3. INSTALL U-BOLT ON CHASSIS.
   - Install U-bolt (1), two washers (2), and new self-locking nuts (3) on conduit group (4) and chassis. Use 7/16 inch socket with ratchet handle.

4. INSTALL RIGHT MAGAZINE BYPASS SOLENOID VALVE CABLE ASSEMBLY P44/P44A ON DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

5. INSTALL LEFT MAGAZINE BYPASS SOLENOID VALVE CABLE ASSEMBLY P43/P43A ON DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)



NOTE

FOLLOW-ON MAINTENANCE:

Stow Spare Wheel And Tire. (See TM 9-1095-205-10.)
Close BITE Panel Door. (See TM 9-1095-205-10.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

END OF TASK

20-12 MAIN CONTROL CONDUIT GROUP

DESCRIPTION

This task covers: A. REMOVAL (p 20-155)
B. INSTALLATION (p 20-157)

INITIAL SETUP

Tools and Special Tools:
General mechanic's tool kit
5180-00-177-7033:
7/16 inch box end wrench
9/16 inch box end wrench
7/16 inch socket
Ratchet handle
Putty knife
10 inch pipe wrench (2) 5120-00-277-1485

Materials/Parts:
Self-locking nut (4) 5310-00-959-1488
Gasket 5330-01-143-1558
Sealing compound, Item 25, Appendix B

Materials/Parts — Continued:
Solvent, Item 28, Appendix B
Rags, Item 22, Appendix B

Personnel Required:
Electrical repairer
Helper

References:
TM 9-1095-205-10
TM 9-1095-205-20
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, Page 16-3

OVERVIEW

The main control conduit group is not supplied as a part. If you need a new main control conduit group, see Appendix C, and assemble one. See:
9291518 main control conduit group.

A. REMOVAL

NOTE

PRELIMINARY PROCEDURES:
Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Remove Main Control Panel Assembly. (See TM 9-1095-205-20.)
Remove Main Control Panel Mounting Bracket. (See TM 9-1095-205-20.)
Open BITE Panel Door. (See TM 9-1095-205-10.)

GO TO NEXT PAGE

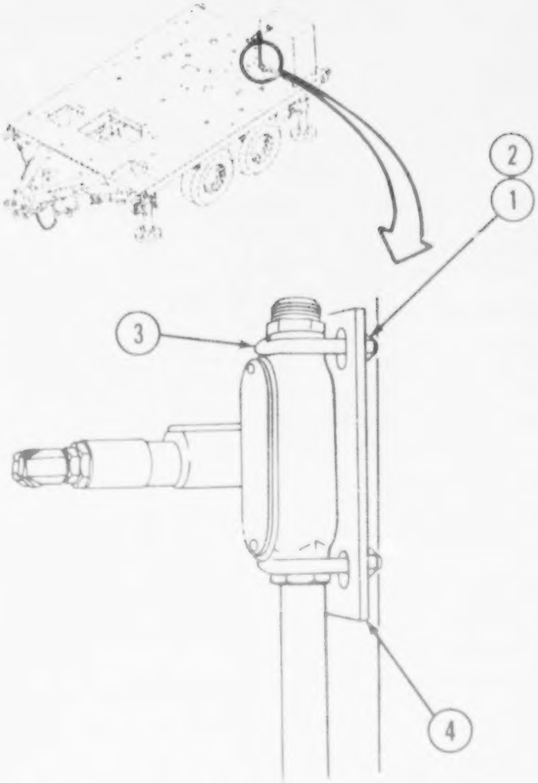
A. REMOVAL — Continued

1. REMOVE MAIN CONTROL PANEL CABLE ASSEMBLY P35 FROM DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

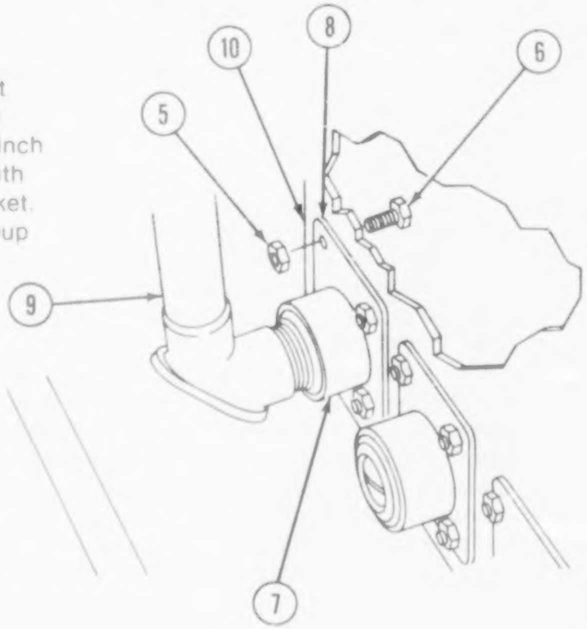
2. REMOVE RIGHT MAGAZINE SERVO ACTUATOR CABLE ASSEMBLY P31 FROM DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

3. REMOVE LEFT MAGAZINE SERVO ACTUATOR CABLE ASSEMBLY P32 FROM DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

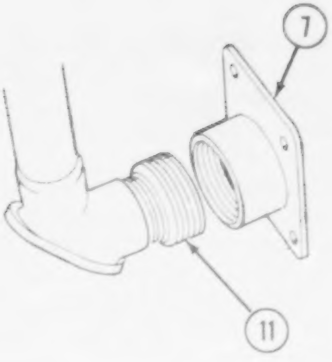
4. REMOVE TWO MAIN CONTROL CONDUIT GROUP U-BOLTS FROM CONDUIT MOUNTING BRACKET.
   - Remove two self-locking nuts (1), washers (2), and U-bolt (3) from mounting bracket (4). Use 9/16 inch box end wrench. Discard self-locking nuts.
   - Repeat above removal step for other U-bolt.



5. REMOVE CONDUIT HUB AND MAIN CONTROL CONDUIT GROUP FROM ELECTRICAL ENCLOSURE ASSEMBLY.
   - Remove four nuts (5), screws (6), conduit hub (7), gasket (8), and conduit group (9) from enclosure assembly (10). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle. Use helper. Discard gasket.
   - Remove conduit hub (7) and conduit group (9) from chassis.



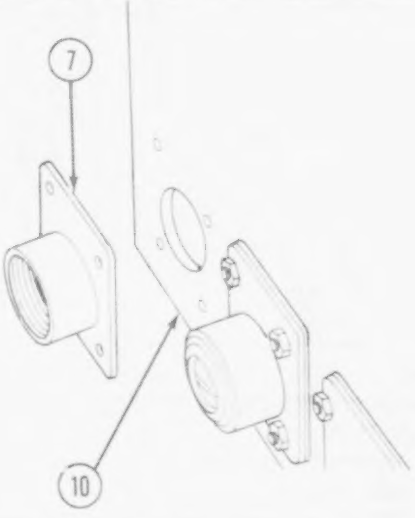
6. REMOVE CONDUIT HUB FROM MAIN CONTROL CONDUIT GROUP REDUCING BUSHING.
   - Remove conduit hub (7) from conduit group reducing bushing (11). Use two 10 inch pipe wrenches.



WARNING

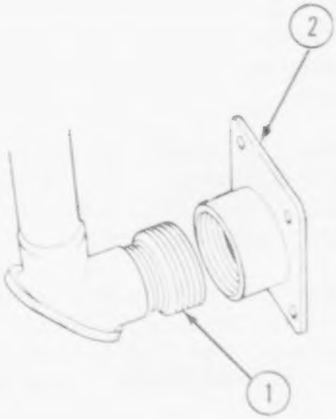
Cleaning solvent can explode and can burn. Read warning on front page of this manual.

7. CLEAN GASKET MATERIAL FROM ENCLOSURE ASSEMBLY AND CONDUIT HUB.
   - Clean gasket mating surfaces of enclosure assembly (10) and conduit hub (7). Use putty knife, solvent, and rags.



B. INSTALLATION

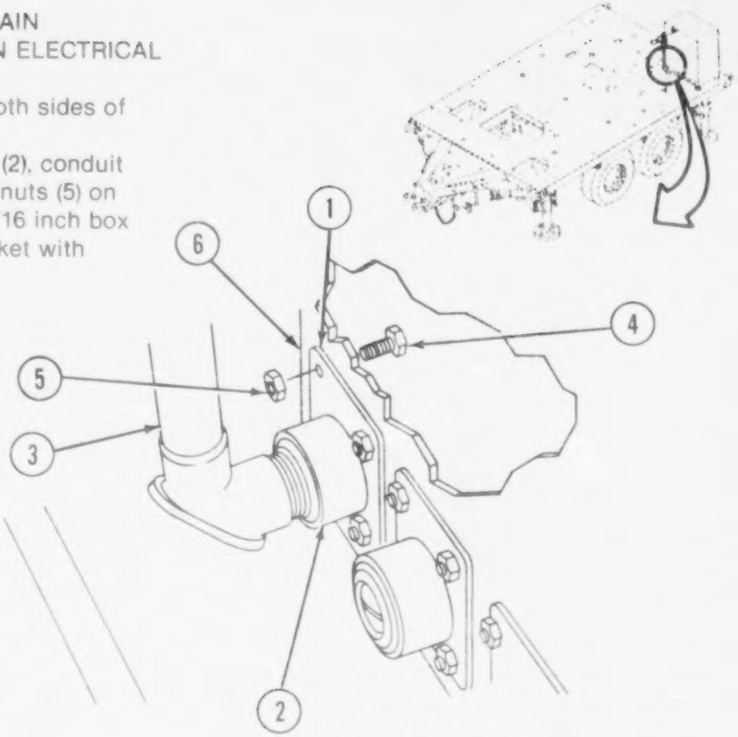
1. INSTALL CONDUIT HUB ON MAIN CONTROL CONDUIT GROUP REDUCING BUSHING.
   - Apply sealing compound to threads of conduit group reducing bushing (1).
   - Install conduit hub (2) on conduit group reducing bushing (1). Use two 10 inch pipe wrenches.



GO TO NEXT PAGE

B. INSTALLATION — Continued

2. INSTALL CONDUIT HUB AND MAIN CONTROL CONDUIT GROUP ON ELECTRICAL ENCLOSURE ASSEMBLY.
   - Apply sealing compound to both sides of new gasket (1).
   - Install gasket (1), conduit hub (2), conduit group (3), four screws (4), and nuts (5) on enclosure assembly (6). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle. Use helper.

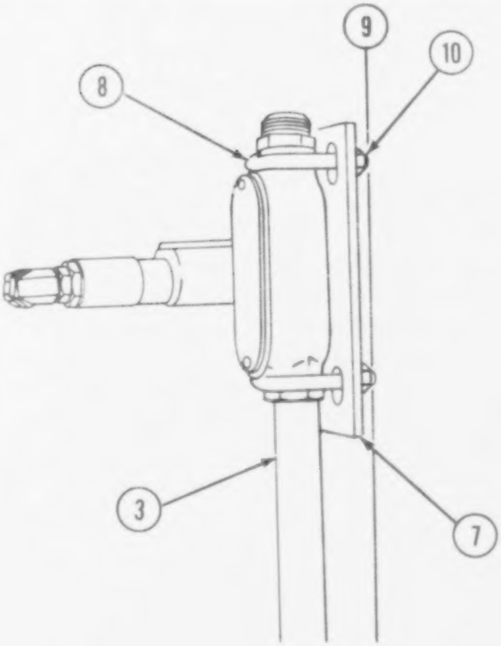


---

3. INSTALL TWO MAIN CONTROL CONDUIT GROUP U-BOLTS ON CONDUIT MOUNTING BRACKET.
   - Position conduit group (3) on mounting bracket (7).
   - Install U-bolt (8), two washers (9), and new self-locking nuts (10) on conduit group (3) and mounting bracket (7). Use 9/16 inch box end wrench.
   - Repeat above installation step for other U-bolt.

4. INSTALL LEFT MAGAZINE SERVO ACTUATOR CABLE ASSEMBLY P32 ON DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

5. INSTALL RIGHT MAGAZINE SERVO ACTUATOR CABLE ASSEMBLY P31 ON DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)



6. INSTALL MAIN CONTROL PANEL CABLE ASSEMBLY P35 ON DISPENSER. (SEE CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, PAGE 16-3.)

NOTE

FOLLOW-ON MAINTENANCE:

Close BITE Panel Door. (See TM 9-1095-205-10.)
Install Main Control Panel Mounting Bracket. (See TM 9-1095-205-20.)
Install Main Control Panel Assembly. (See TM 9-1095-205-20.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Operator Control Box. (See TM 9-1095-205-10.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Put Cables In Storage Cabinet. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)

END OF TASK

20-13 UPPER REAR CONDUIT ASSEMBLY

DESCRIPTION

This task covers:
A. REMOVAL (p 20-162)
B. INSTALLATION (p 20-166)

INITIAL SETUP

Tools and Special Tools:

General mechanic's tool kit
5180-00-177-7033:
- 7/16 inch socket
- 7/16 inch box end wrench
- 2 inch extension
- 9/16 inch socket
- 9/16 inch box end wrench
- Ratchet handle

15 inch adjustable auto wrench (2)
5120-00-423-6728
Goggles 4240-00-269-7912
10 inch pipe wrench (2) 5120-00-277-1485
Slip joint pliers 5120-00-278-0352
14 inch pipe wrench (2) 5120-00-277-1486

Materials/Parts:

Self-locking nut (6) 5310-00-088-1251
Self-locking nut (2) 5310-00-087-4652
Sealing compound, Item 25, Appendix B

Personnel Required:

Electrical repairer
Helper

References:

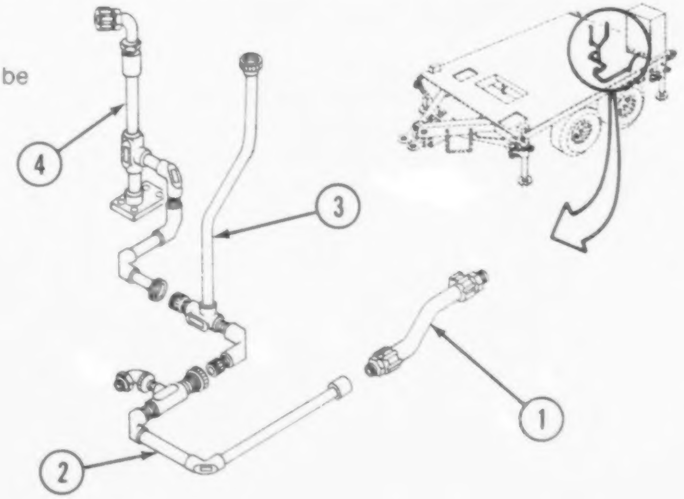
TM 9-1095-205-10
TM 9-1095-205-20
CABLE, WIRE BUNDLE, AND LEAD ASSEMBLIES, Page 16-3
ELECTRICAL ENCLOSURE ASSEMBLY AND SHOCK MOUNTS, Page 11-5
JUNCTION BOX JB3 ASSEMBLY, Page 6-7
LEFT MAGAZINE HYDRAULIC INSTALLATION, Page 9-115

OVERVIEW

The upper rear conduit assembly consists of four sections: Section 1, Section 2, Section 3, and Section 4. The assembly is not supplied as parts. If you need a new assembly, see Appendix C and make one. See:

9291519 upper rear conduit assembly.

Upper rear conduit assembly sections may be assembled before installation on chassis.



① FLEXIBLE CONDUIT (SECTION 1)
② SECTION 2
③ SECTION 3
④ SECTION 4

Upper Rear Conduit Assembly Locator

GO TO NEXT PAGE

20-13 UPPER REAR CONDUIT ASSEMBLY — Continued

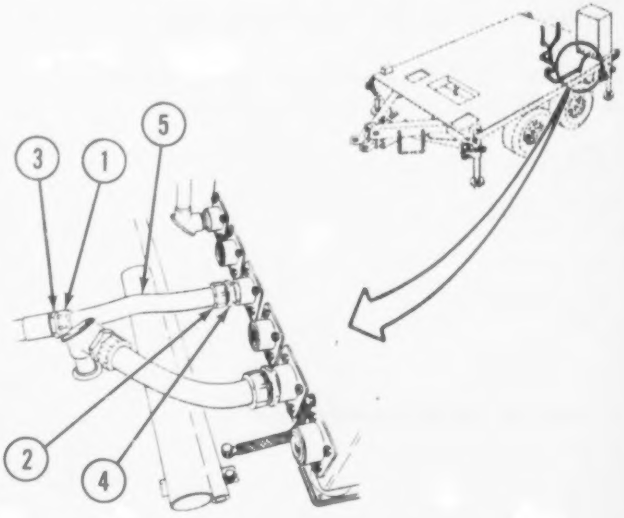
A. REMOVAL

NOTE

PRELIMINARY PROCEDURES:

Open Right Battery Box Cover. (See TM 9-1095-205-10.)
Remove Negative Lead From No. 2 Battery. (See TM 9-1095-205-20.)
Unstow Spare Tire And Wheel. (See TM 9-1095-205-10.)
Remove Operator Control Box From Storage Cabinet. (See TM 9-1095-205-10.)
Remove Cables From Storage Cabinet. (See TM 9-1095-205-10.)
Unstow Operator's Manual. (See TM 9-1095-205-10.)
Unstow Rawhide Mallet. (See TM 9-1095-205-10.)
Unstow Manual Crank. (See TM 9-1095-205-10.)
Remove Control Box Storage Assembly. (See TM 9-1095-205-20.)
Remove Hydraulic Lines Cover. (See Left Magazine Hydraulic Installation, Page 9-115.)
Remove Control Box Frame Assembly. (See TM 9-1095-205-20.)
Open BITE Panel Door. (See TM 9-1095-205-10.)
Remove Vehicle Distance Encoder Cable Assembly P11. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Remove Left Magazine Bypass Solenoid Valve Cable Assembly P43/43A. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Remove Right Magazine Bypass Solenoid Valve Cable Assembly P44/44A. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Remove Lead Assembly Wire No. 13. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Remove Wire Bundle Assembly JB3. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Remove Conduit Hub C1 Wire Bundle Leads. (See Electrical Enclosure Assembly and Shock Mounts, Page 11-5.)
Remove Junction Box JB3. (See Junction Box JB3 Assembly, Page 6-7.)

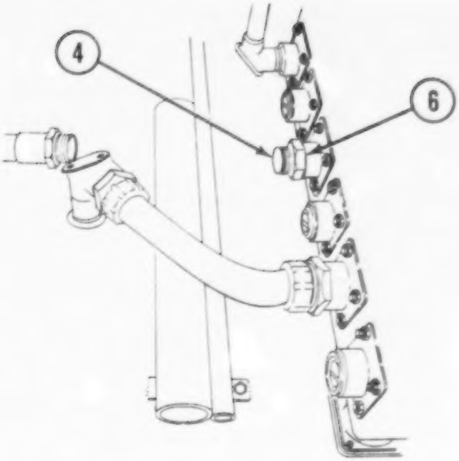
1. REMOVE FLEXIBLE CONDUIT FROM DISPENSER.
   - Remove connector hubs (1) and (2) from connector bodies (3) and (4). Use two 15 inch adjustable auto wrenches.
   - Remove flexible conduit (5) with connector hubs (1) and (2) from dispenser.



NOTE

Do not remove connector body from reducing bushing unless required for maintenance.

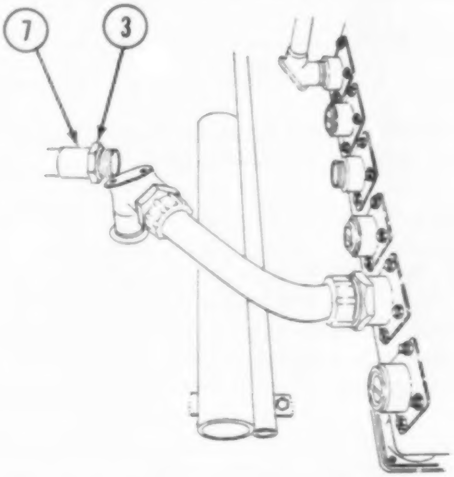
2. REMOVE CONNECTOR BODY FROM REDUCING BUSHING.
   - Remove connector body (4) from reducing bushing (6). Use 15 inch adjustable auto wrench.



NOTE

Do not remove connector body from coupling unless required for maintenance.

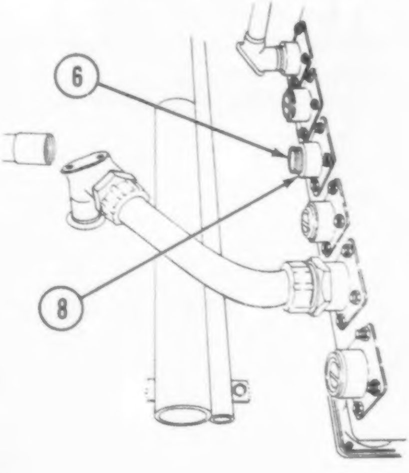
3. REMOVE CONNECTOR BODY FROM COUPLING.
   - Remove connector body (3) from coupling (7). Use 15 inch adjustable auto wrench and 14 inch pipe wrench.



NOTE

Do not remove reducer bushing unless required for maintenance.

4. REMOVE REDUCER BUSHING FROM CONDUIT HUB.
   - Remove reducer bushing (6) from conduit hub (8). Use 14 inch pipe wrench.



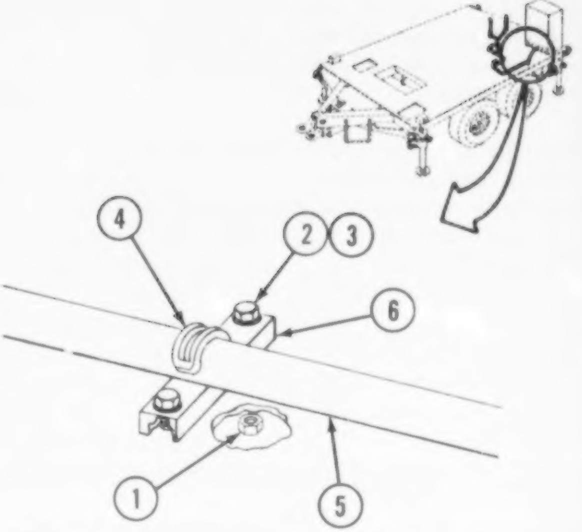
GO TO NEXT PAGE

A. REMOVAL — Continued

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

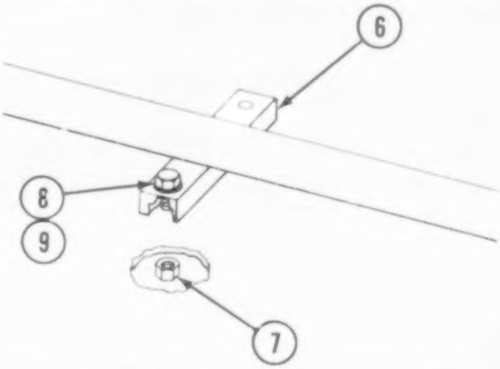
5. REMOVE CONDUIT PIPE STRAP FROM UPPER REAR CONDUIT SECTION 2 AND MOUNTING PAD.
   - Remove self-locking nut (1), screw (2), washer (3), and strap (4) from Conduit Section 2 (5) and mounting pad (6). Use 7/16 inch box end wrench and 7/16 inch socket with 2 inch extension and ratchet handle. Use helper. Discard self-locking nut.



NOTE

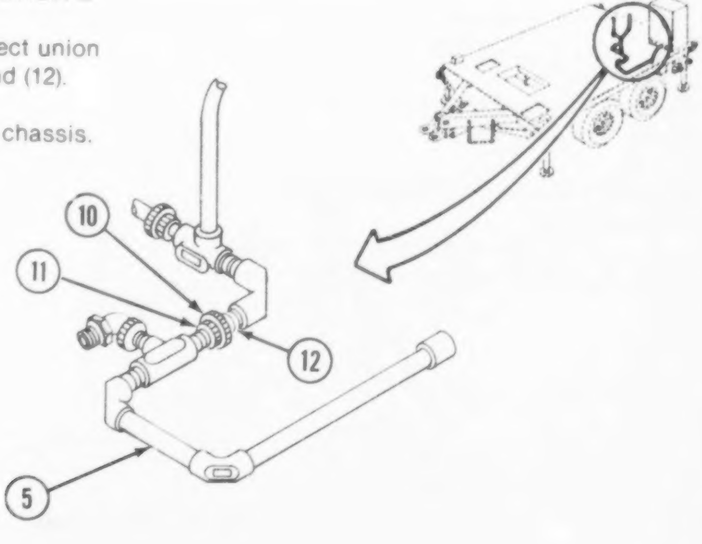
Do not remove mounting pad from chassis unless required for maintenance.

6. REMOVE MOUNTING PAD FROM CHASSIS.
   - Remove self-locking nut (7), screw (8), washer (9), and mounting pad (6) from chassis. Use 7/16 inch box end wrench and 7/16 inch socket with 2 inch extension and ratchet handle. Use helper. Discard self-locking nut.



---

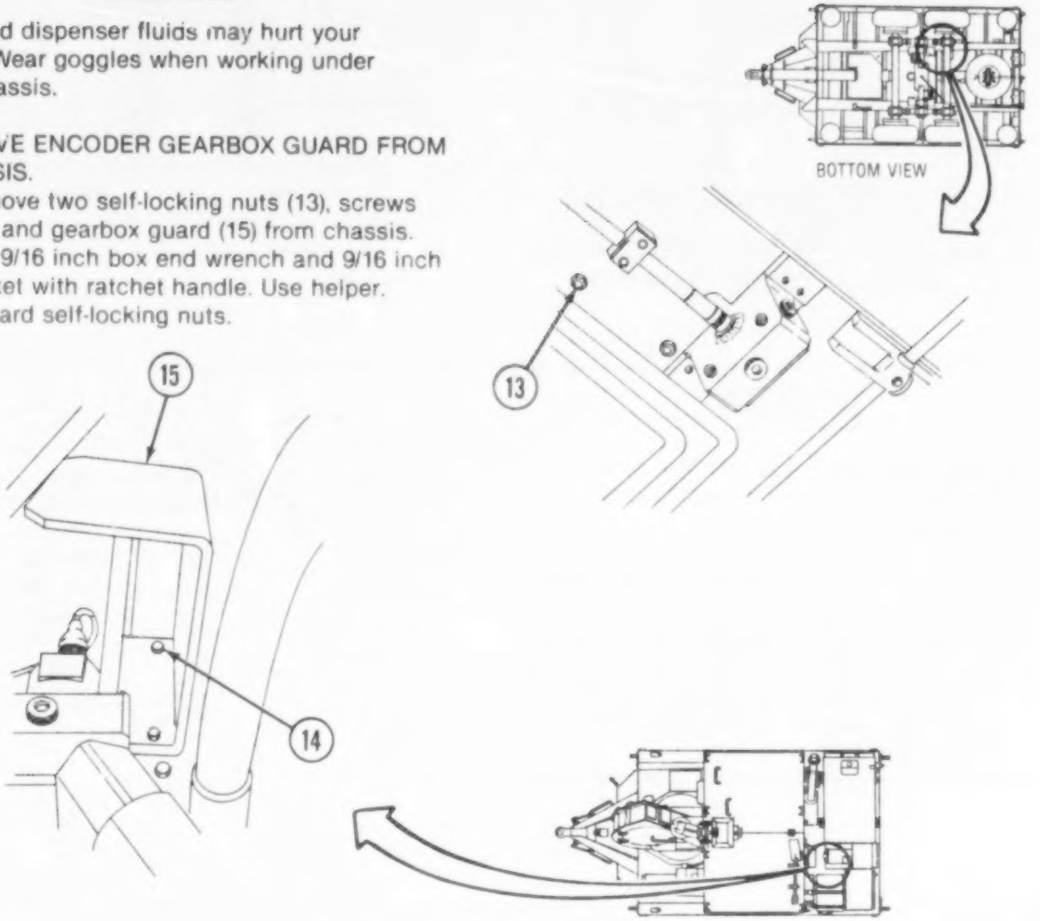
7. REMOVE UPPER REAR CONDUIT SECTION 2 FROM CHASSIS.
   - Turn union sleeve (10) and disconnect union female end (11) from union male end (12). Use slip joint pliers.
   - Remove Conduit Section 2 (5) from chassis.



WARNING

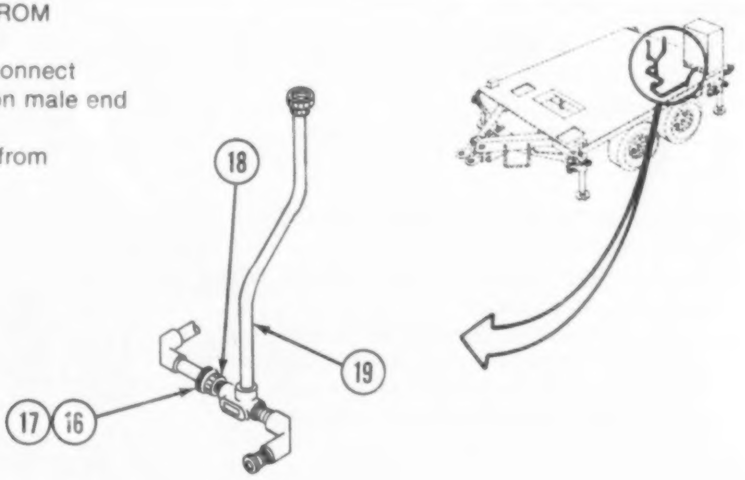
Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

8. REMOVE ENCODER GEARBOX GUARD FROM CHASSIS.
   - Remove two self-locking nuts (13), screws (14), and gearbox guard (15) from chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle. Use helper. Discard self-locking nuts.



---

9. REMOVE CONDUIT SECTION 3 FROM CHASSIS.
   - Turn union sleeve (16), and disconnect union female end (17) from union male end (18). Use slip joint pliers.
   - Remove Conduit Section 3 (19) from chassis.



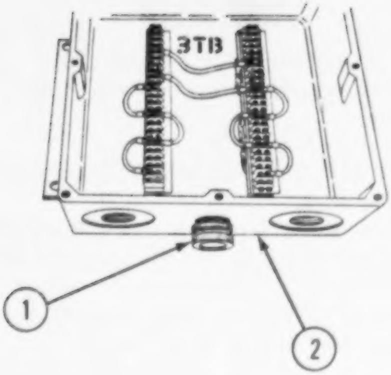
GO TO NEXT PAGE

A. REMOVAL — Continued

NOTE

Do not remove union male end from Junction Box JB3 unless required for maintenance.

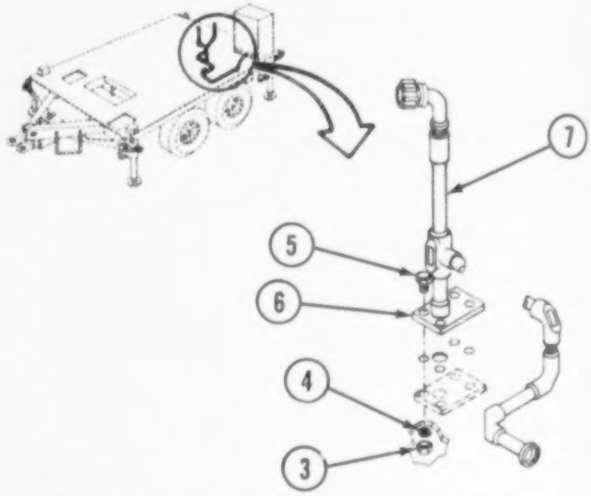
10. REMOVE UNION MALE END FROM JUNCTION BOX JB3.
    - Remove union male end (1) from Junction Box JB3 (2). Use 10 inch pipe wrench.



WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

11. REMOVE UPPER REAR CONDUIT SECTION 4 FROM CHASSIS.
    - Remove four self-locking nuts (3), washers (4), and screws (5) from conduit hub (6). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle. Use helper. Discard self-locking nuts.
    - Remove Conduit Section 4 (7) from chassis.

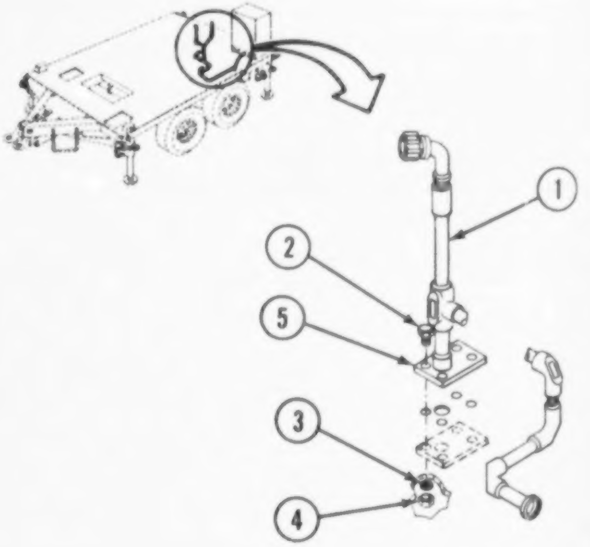


B. INSTALLATION

WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

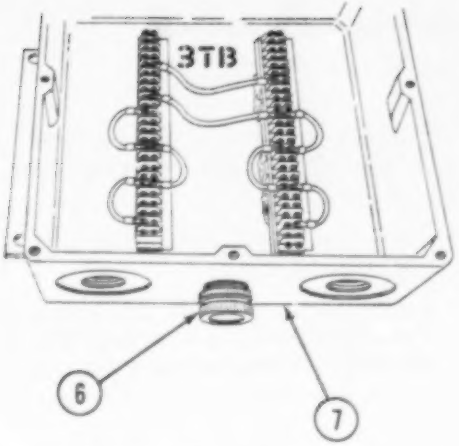
1. INSTALL UPPER REAR CONDUIT SECTION 4 ON CHASSIS.
    - Place Conduit Section 4 (1) on chassis, with mounting holes alined.
    - Install four screws (2), washers (3), and new self-locking nuts (4) on conduit hub (5). Use 7/16 inch box end wrench and 7/16 inch socket with ratchet handle. Use helper.



NOTE

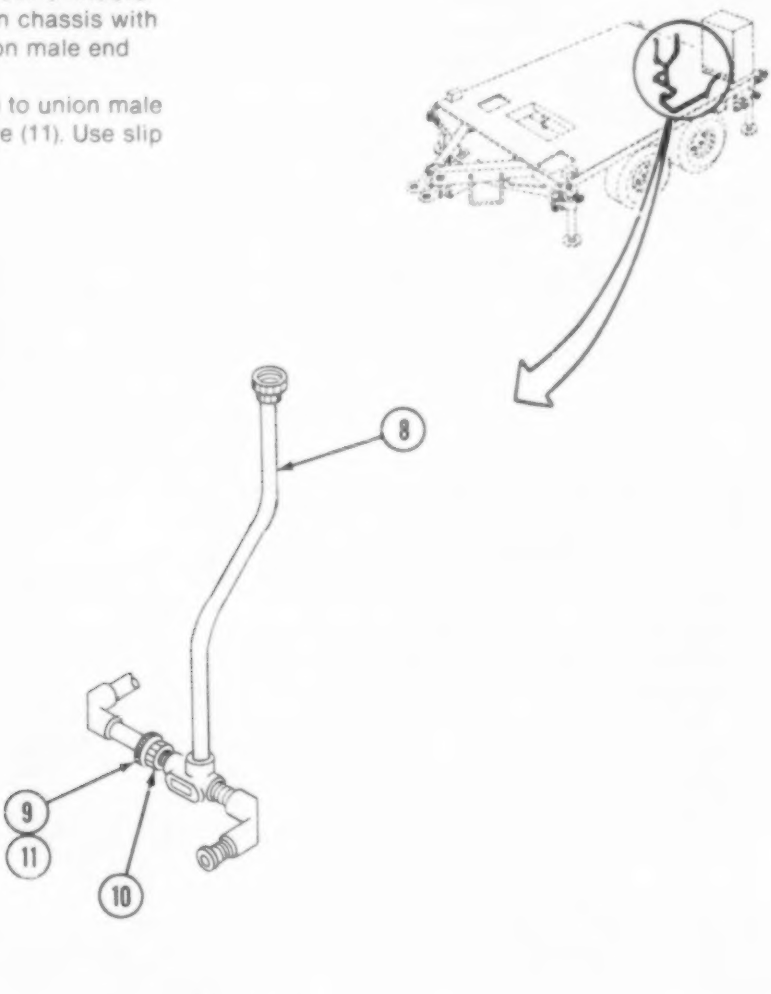
If union male end was not removed, go to step 3.

2. INSTALL UNION MALE END ON JUNCTION BOX JB3.
   - Apply sealing compound to threads of union male end (6).
   - Install union male end (6) on Junction Box JB3 (7). Use 10 inch pipe wrench.



---

3. INSTALL CONDUIT SECTION 3 ON CHASSIS.
   - Place Conduit Section 3 (8) on chassis with union female end (9) and union male end (10) alined.
   - Connect union female end (9) to union male end (10), and turn union sleeve (11). Use slip joint pliers.



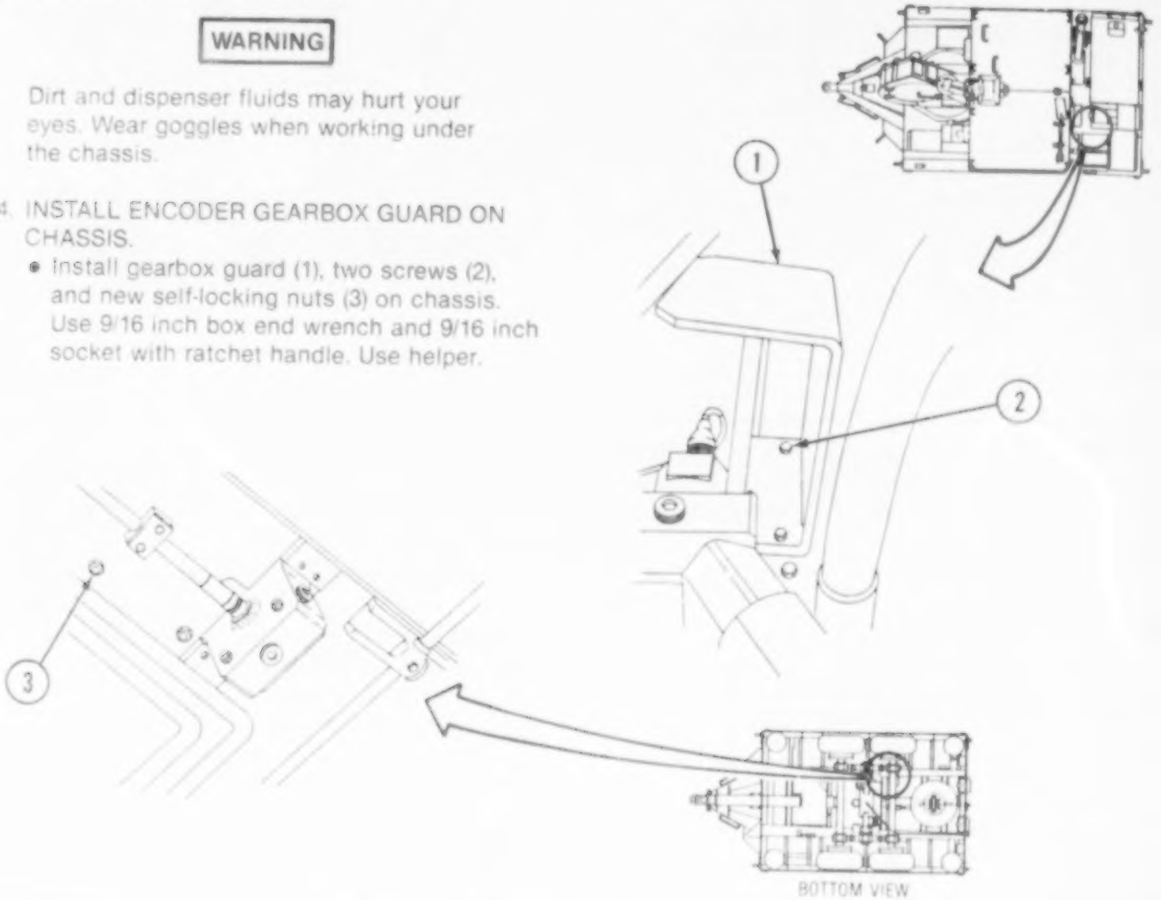
GO TO NEXT PAGE

B. INSTALLATION — Continued

WARNING

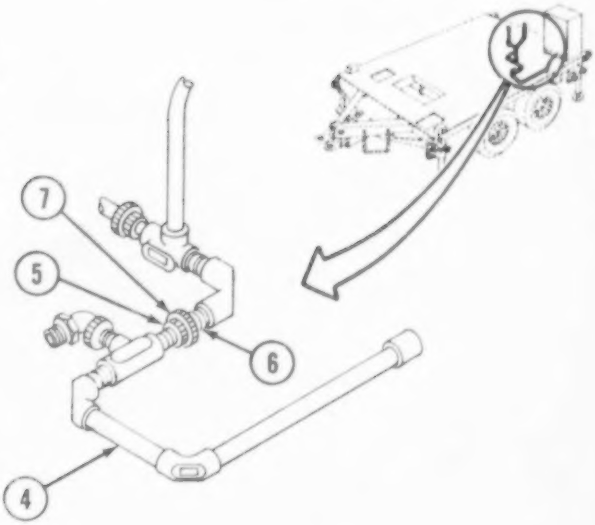
Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

4. INSTALL ENCODER GEARBOX GUARD ON CHASSIS.
   - Install gearbox guard (1), two screws (2), and new self-locking nuts (3) on chassis. Use 9/16 inch box end wrench and 9/16 inch socket with ratchet handle. Use helper.



---

5. INSTALL UPPER REAR CONDUIT SECTION 2 ON CHASSIS.
   - Place Conduit Section 2 (4) on chassis with union female end (5) and union male end (6) alined.
   - Connect union female end (5) to union male end (6), and turn union sleeve (7). Use slip joint pliers.



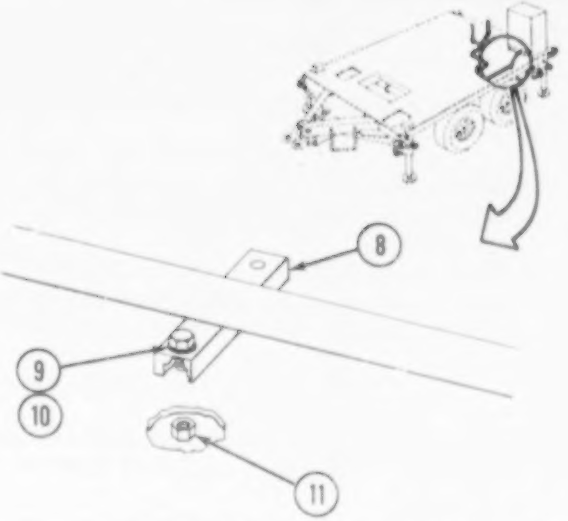
WARNING

Dirt and dispenser fluids may hurt your eyes. Wear goggles when working under the chassis.

NOTE

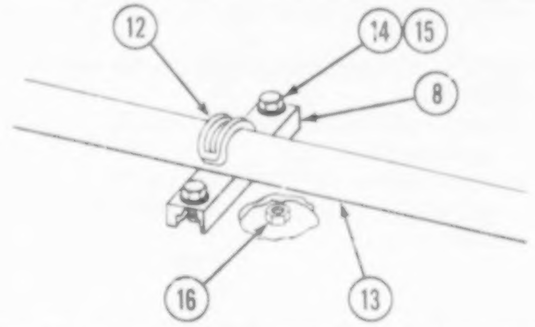
If mounting pad was not removed, go to step 7.

6. INSTALL MOUNTING PAD ON CHASSIS.
   - Install mounting pad (8), washer (9), screw (10), and new self-locking nut (11) on chassis. Use 7/16 inch box end wrench and 7/16 inch socket with 2 inch extension and ratchet handle. Use helper.



---

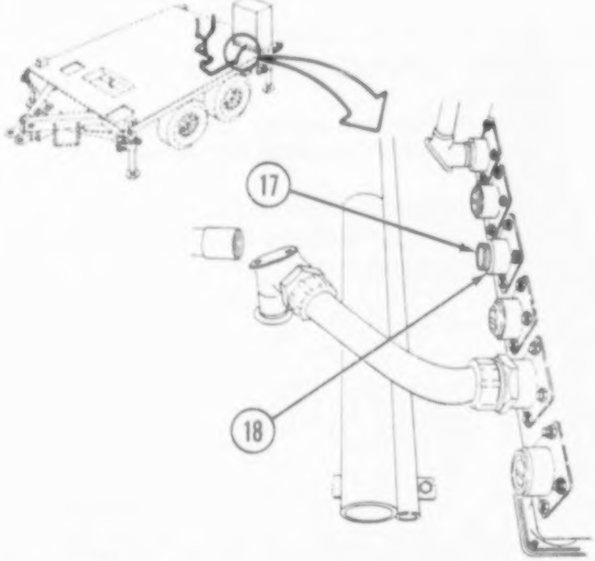
7. INSTALL CONDUIT PIPE STRAP ON UPPER REAR CONDUIT SECTION 2 AND MOUNTING PAD.
   - Position strap (12) on Conduit Section 2 (13) and mounting pad (8), with mounting holes alined.
   - Install strap (12), washer (14), screw (15), and new self-locking nut (16) on mounting pad (8). Use 7/16 inch box end wrench and 7/16 inch socket with 2 inch extension and ratchet handle. Use helper.



NOTE

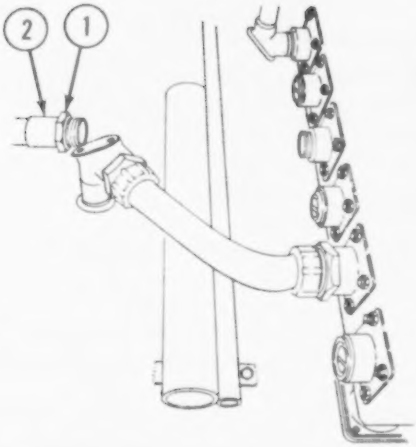
If reducer bushing was not removed, go to step 9.

8. INSTALL REDUCER BUSHING ON CONDUIT HUB.
   - Apply sealing compound to threads of reducer bushing (17).
   - Install reducer bushing (17) on conduit hub (18).



GO TO NEXT PAGE

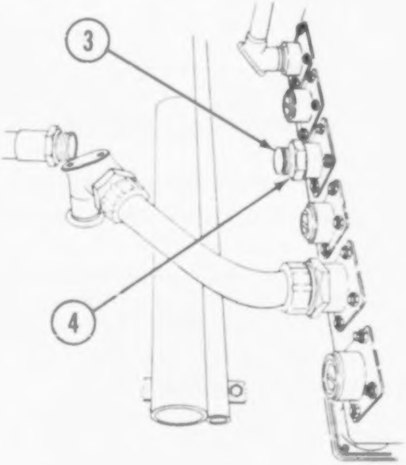
B. INSTALLATION — Continued



NOTE

If connector body was not removed from coupling, go to step 10.

9. INSTALL CONNECTOR BODY ON COUPLING.
   - Apply sealing compound to threads of connector body (1).
   - Install connector body (1) on coupling (2). Use 15 inch adjustable auto wrench and 14 inch pipe wrench.



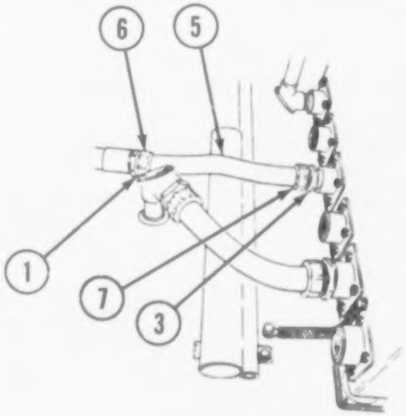
NOTE

If connector body was not removed from reducer bushing, go to step 11.

10. INSTALL CONNECTOR BODY ON REDUCER BUSHING.
    - Apply sealing compound to threads of connector body (3).
    - Install connector body (3) on reducer bushing (4). Use 15 inch adjustable auto wrench.

---

11. INSTALL FLEXIBLE CONDUIT ON DISPENSER.
    - Position flexible conduit (5) with connector hubs (6) and (7) in connector bodies (1) and (3).
    - Install connector hubs (6) and (7) on connector bodies (1) and (3). Use two 15 inch adjustable auto wrenches.



NOTE

FOLLOW-ON MAINTENANCE:

Install Junction Box JB3. (See Junction Box JB3 Assembly, Page 6-7.)
Install Conduit Hub C1 Wire Bundle Leads. (See Electrical Enclosure Assembly and Shock Mounts, Page 11-5.)
Install Wire Bundle Assembly JB3. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Lead Assembly Wire No. 13. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Right Magazine Bypass Solenoid Valve Cable Assembly P44/P44A. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Left Magazine Bypass Solenoid Valve Cable Assembly P43/P43A. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Vehicle Distance Encoder Assembly P11. (See Cable, Wire Bundle, and Lead Assemblies, Page 16-3.)
Install Control Box Frame Assembly. (See TM 9-1095-205-20.)
Install Hydraulic Lines Cover. (See Left Magazine Hydraulic Installation, Page 9-115.)
Install Control Box Storage Assembly. (See TM 9-1095-205-20.)
Stow Manual Crank. (See TM 9-1095-205-10.)
Stow Rawhide Mallet. (See TM 9-1095-205-10.)
Stow Operator's Manual. (See TM 9-1095-205-10.)
Stow Spare Tire and Wheel. (See TM 9-1095-205-10.)
Install Negative Lead On No. 2 Battery. (See TM 9-1095-205-20.)
Close Right Battery Box Cover. (See TM 9-1095-205-10.)
Perform Dispenser Controls Readiness Test. (See TM 9-1095-205-10.)
Perform B.I.T.E./ALARM CONTROL PANEL Checkout Procedure. (See TM 9-1095-205-20.)
Disconnect And Stow Operator Control Box And Cable. (See TM 9-1095-205-10.)

END OF TASK

APPENDIX A

REFERENCES

A-1. SCOPE

This appendix lists all publications referenced in this technical manual or relating to the material covered in this technical manual.

A-2. FORMS

Recommended Changes to Publications and Blank Forms	DA Form 2028
Recommended Changes to Equipment Technical Publications	DA Form 2028-2
Quality Deficiency Report	SF 368

A-3. TECHNICAL MANUALS

Operator's Manual: M128 Ground Vehicle Mine Dispenser	TM 9-1095-205-10
Maintenance Instructions, Organizational Maintenance: M128 Ground Vehicle Mine Dispenser	TM 9-1095-205-20
Operator and Organizational Maintenance Manual (Including Repair Parts and Special Tool Lists): Dynamometer, Run-In	TM 9-4910-393-12
Operator and Organizational Maintenance Manual (Including Repair Parts and Special Tool Lists): Test Stand, Automotive Generator, Alternator, and Starter, Floor Mounted	TM 9-4910-485-12
Operator, Organizational, Direct Support and General Support Maintenance Manual for Tool Outfit, Hydraulic Systems Test and Repair (HSTRU)	TM 9-4940-468-14
The Army Maintenance Management System (TAMMS)	TM 38-750
Transportability Guidance: M128 Ground Vehicle Mine Dispenser	TM 55-1095-205-14
Organizational, Direct Support, General Support, and Depot Maintenance Manual: Installation Practices for Aircraft Electric and Electronic Wiring	TM 55-1500-323-25

GO TO NEXT PAGE

REFERENCES — Continued

A-4. REPAIR PARTS AND SPECIAL TOOLS LIST

Direct Support and General Support Maintenance Repair Parts and Special Tools List (Including Depot Maintenance Repair Parts): M128 Ground Vehicle Mine Dispenser	TM 9-1095-205-34P

A-5. TECHNICAL BULLETIN

Dispenser, Mine: Ground Vehicle M128 — Preparation for Shipment and Storage	TB 9-1095-205-23

A-6. MISCELLANEOUS PUBLICATIONS

Field Manual: First Aid for Soldiers	FM 21-11
Lubrication Order: M128 Ground Vehicle Mine Dispenser	LO 9-1095-205-12

APPENDIX B

EXPENDABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

B-1. SCOPE

This appendix lists expendable supplies and materials you will need to maintain the M128 Mine Dispenser. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

B-2. EXPLANATION OF COLUMNS

a. Column (1) — Item number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use solvent, Item 28, Appendix B").

b. Column (2) — Level. This column identifies the lowest level of maintenance that requires the listed item:

F — Direct Support Maintenance
H — General Support Maintenance

c. Column (3) — National Stock Number. This is the National stock number assigned to the item; use it to request the item.

d. Column (4) — Description. Indicates the federal item name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for Manufacturer (FSCM) in parentheses followed by the part number.

e. Column (5) — Unit Of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

GO TO NEXT PAGE

Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	F	8040-00-247-7642	ADHESIVE CEMENT: (19200) 9321922	OZ
2	F	8040-00-828-7385	ADHESIVE SEALANT: (81349) MIL-A-46106	TU
3	F	6850-00-664-1599	ANTIFREEZE COOLANT: (81348) O-A-584	GL
4	F	5350-00-221-0872	CROCUS CLOTH, ABRASIVE: (81348) P-C-458	SH
5	H	6830-01-011-7848	CARBON DIOXIDE, TECHNICAL, SOLID: (dry ice) (81348) BB-C-104	LB
6	F	8030-00-933-7084	DUCT SEALING COMPOUND: (75165) DUXSEAL	LB
7	F	8040-00-181-7201	EPOXY: (19200) 9291001	KT
8	F	5350-00-664-9692	FLINT ABRASIVE PAPER: (81348) PP105, CLASS 2	PG
9	F	8030-00-252-3391	GASKET FORMING COMPOUND: (81349) MIL-S-45180	TU
10	F	9150-00-269-8255	GREASE, AIRCRAFT: (81349) MIL-G-4343	LB
11	F	9150-00-190-0904	GREASE, AUTOMOTIVE AND ARTILLERY (GAA): (81349) MIL-G-10924	LB
12	F	9150-00-180-6181	HYDRAULIC FLUID, PET (OHA): (81349) MIL-L-5606	QT
13	F	5970-01-012-1057	INSULATING VARNISH, ELECTRICAL: (81349) MIL-I-24092	PT
14	F	5330-00-240-4689	LAPPING AND GRINDING COMPOUND, Type 2: (81348) SS-L-1682	LB
15	F	5350-00-567-1687	LAPPING AND GRINDING COMPOUND, Type 1: (81348) SS-L-1682	LB
16	F		LUBRICATING OIL, ENGINE: (81349) MIL-L-2104	QT

EXPENDABLE SUPPLIES AND MATERIALS LIST — Continued

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
17	F		LUBRICATING OIL, GEAR (GO): (81349) MIL-L-2105	GL
18	F	9150-00-271-8427	LUBRICATING OIL, GENERAL PURPOSE, PL-M: (81349) MIL-L-3150	OZ
19	F	7510-00-685-4963	TAPE, PRESSURE SENSITIVE, ADHESIVE: (masking tape) 1 inch (81349) MIL-T-21595	RO
20	F	9330-00-580-6718	PLASTIC SHEET: 10 x 12 INCHES (81348) L-P-528	SH
21	F	9320-00-720-0378	TAPE, ADHESIVE, RUBBER: (pressure sensitive tape) (81349) MIL-T-46151	FT
22	F	7920-00-205-1711	RAG, WIPING: (81348) DDD-R-30	BE
23	F	9505-00-293-4208	WIRE, NON-ELECTRICAL: (safety or lock wire) (96906) MS20995-C32	SL
24	F	9505-00-603-4122	WIRE, NON-ELECTRICAL: (safety or lock wire) (96906) MS20995-C47	SL
25	F	8030-00-081-2328	SEALING COMPOUND: (81349) MIL-S-22473	BT
26	F	0030-00-252-3391	SEALING COMPOUND, GASKET FORMING: (81349) MIL-S-45180	PT
27	F	3439-00-269-9610	SOLDER, TIN ALLOY: (81348) QQ-S-571	LB
28	F	6850-00-281-8811	SOLVENT, DRY CLEANING: (61102) P-D-680	GL
29	F	9140-00-286-5294	FUEL OIL, DIESEL: (81348) VV-F-800	GL

APPENDIX C

ILLUSTRATED LIST OF MANUFACTURED ITEMS

INTRODUCTION

This appendix includes complete instructions for making items authorized to be manufactured or fabricated at direct and general support maintenance.

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the figure which covers fabrication criteria.

All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

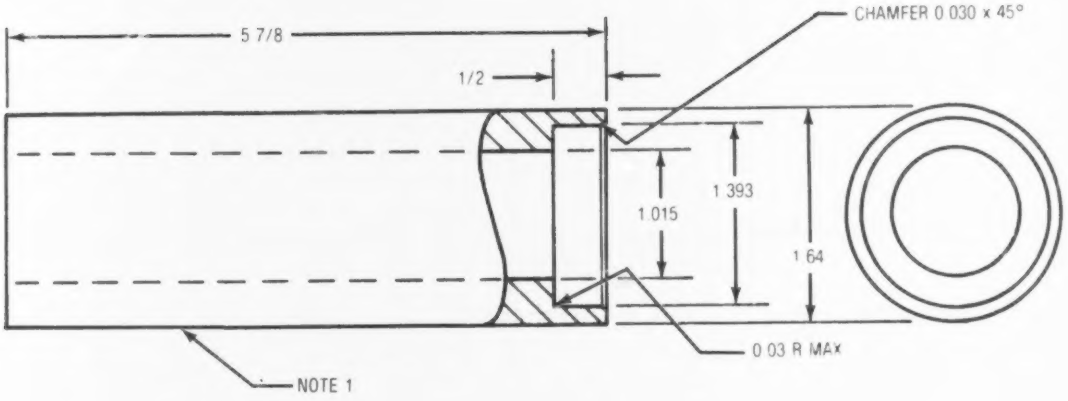
MANUFACTURED ITEMS CROSS REFERENCE LIST

Part	Page	Part	Page
SK2435	C-2	9290923	C-29
SK2436	C-3	9290924	C-30
SK2437	C-4	9290925	C-31
SK2438	C-5	9291098	C-32
SK2439	C-6	9291099	C-33
SK2490	C-7	9291123	C-34
9289854	C-8	9291126	C-35
9290085	C-9	9291132	C-36
9290086	C-10	9291133	C-37
9290087	C-11	9291136	C-38
9290446	C-12	9291148	C-39
9290447	C-13	9291149	C-40
9290449	C-14	9291150	C-41
9290450	C-15	9291151	C-42
9290496	C-16	9291154	C-43
9290504	C-17	9291155	C-44
9290505	C-18	9291156	C-45
9290551	C-19	9291157	C-46
9290571	C-20	9291158	C-47
9290572	C-21	9291159	C-48
9290573	C-22	9291160	C-49
9290574	C-23	9291161	C-50
9290575	C-24	Hex key	C-51
9290576	C-25	Brass rod	C-52
9290600	C-26	9291510	C-53
9290697-1	C-27	9291511	C-58
9290697-2	C-27	9291515	C-59
9290697-4	C-27	9291518	C-60
9290697-5	C-27	9291519	C-62
9290922	C-28	9291520	C-66

GO TO NEXT PAGE

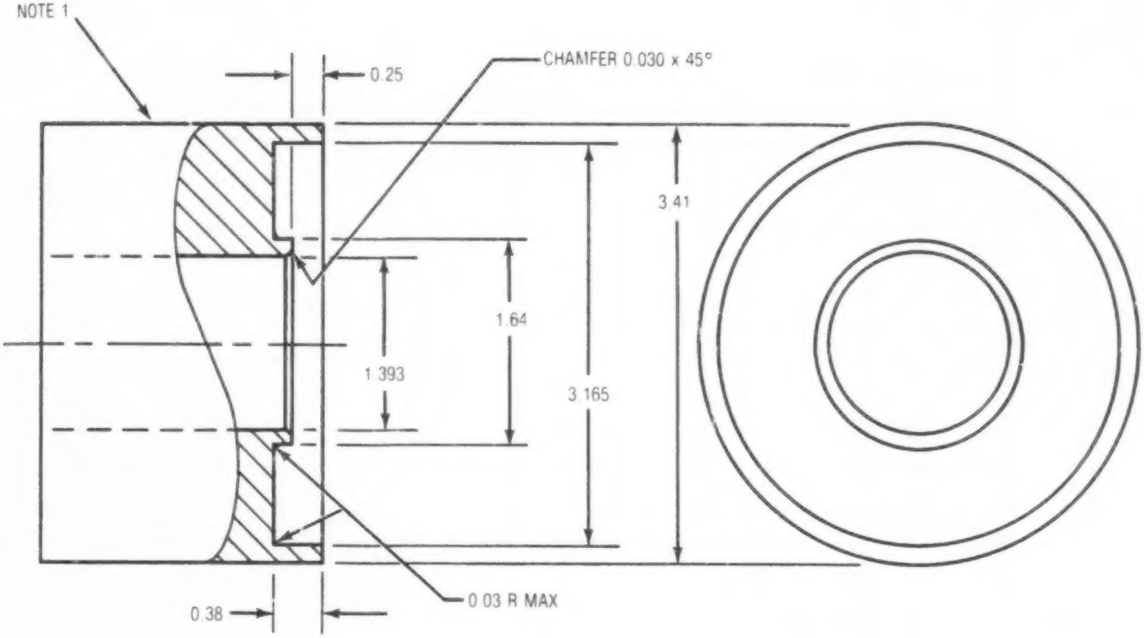
ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

SK2435 SHOULDERED SHAFT OUTER RADIAL BEARING INSTALLATION TOOL



NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

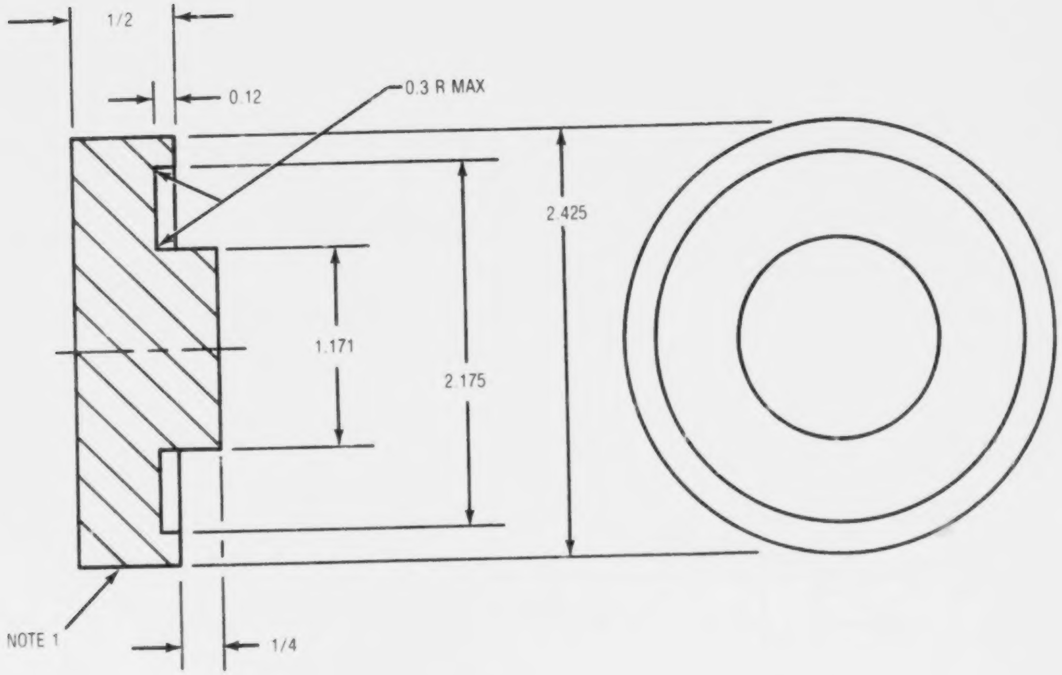
SK2436 SHOULDERED SHAFT INNER RADIAL BEARING INSTALLATION TOOL



NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

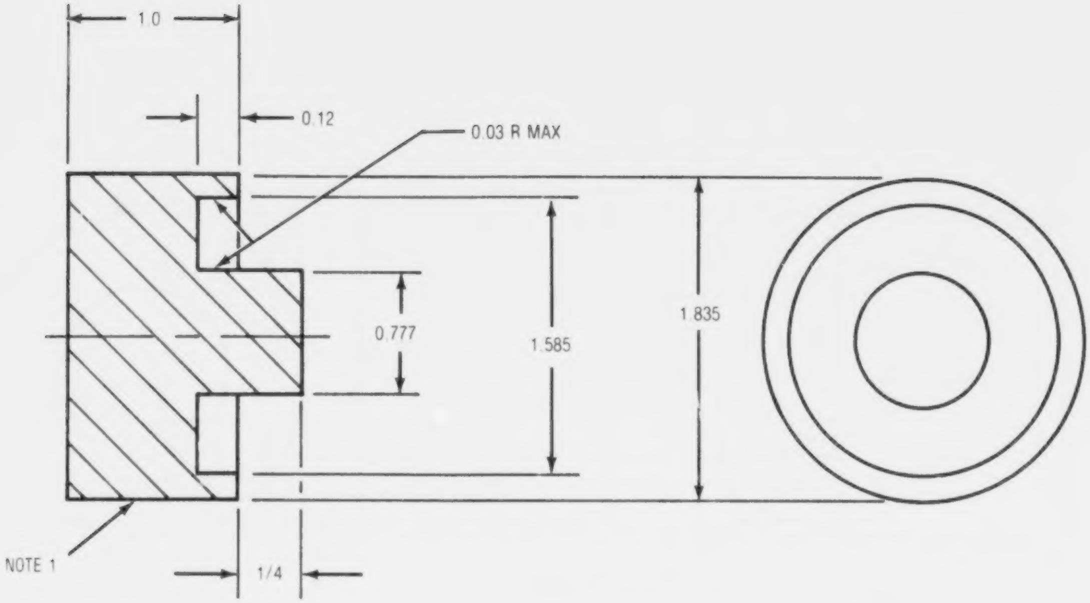
ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

SK2437 INNER AND OUTER MODIFIED IDLER SPROCKET RADIAL BEARING INSTALLATION TOOL



NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

SK2438 IDLER SPROCKET RADIAL BEARING INSTALLATION TOOL

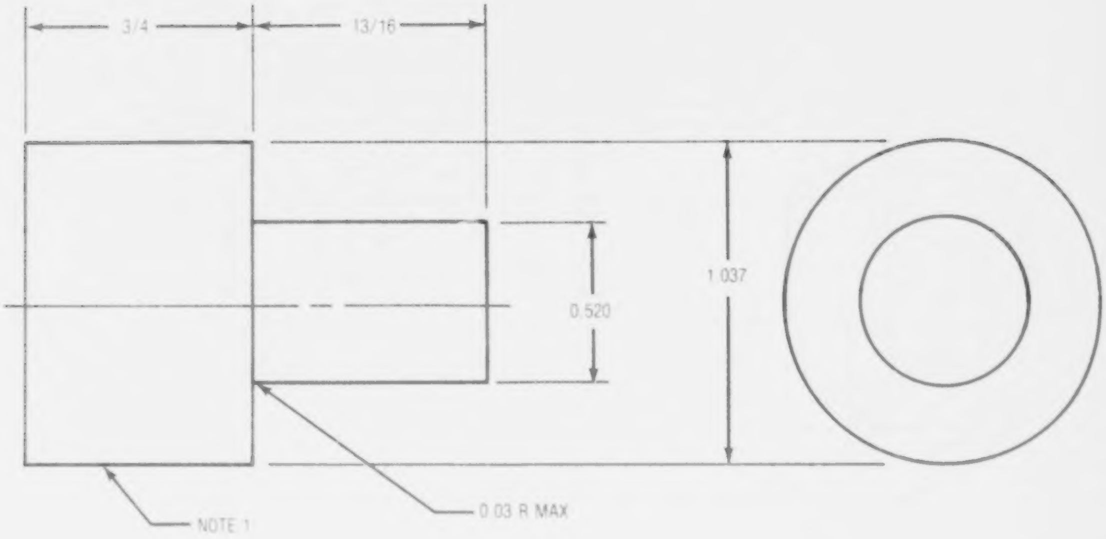


NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

best copy available

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

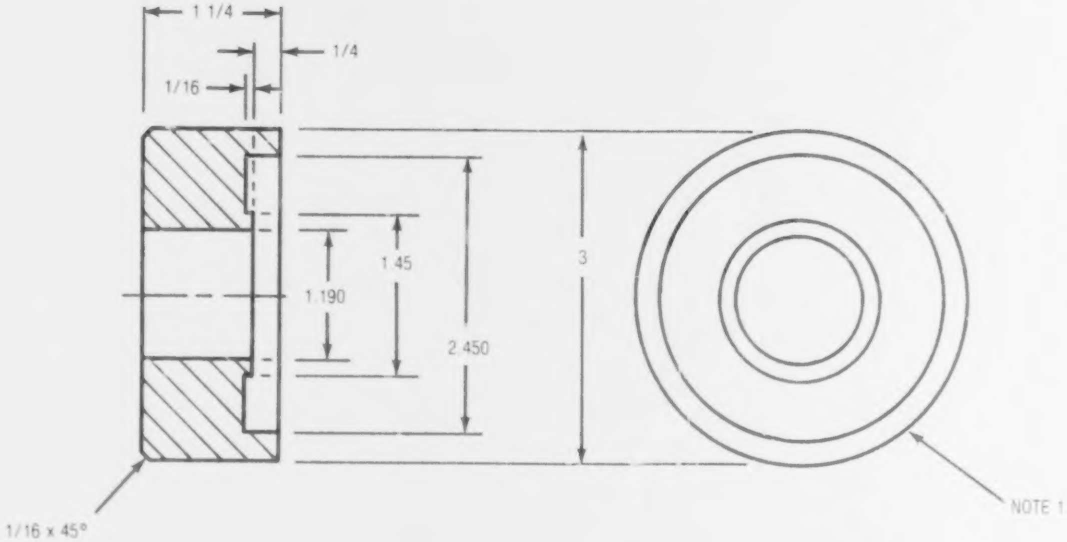
SK2439 SHOULDERED SHAFT INSTALLATION TOOL



NOTES:

1. Fabricate from stock.
2. All dimensions are in inches.

SK2490 BEARING INSTALLATION TOOL

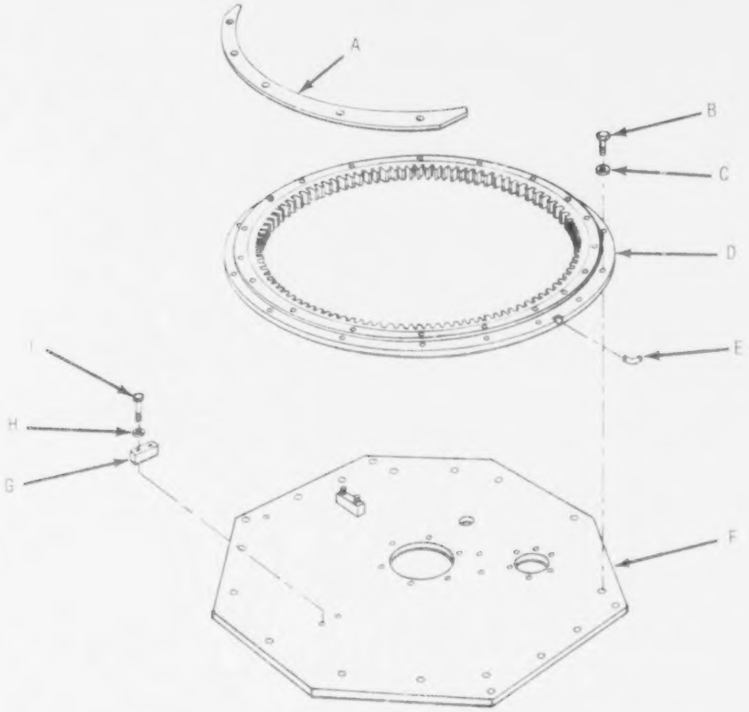


NOTES:

1. Fabricate from stock.
2. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

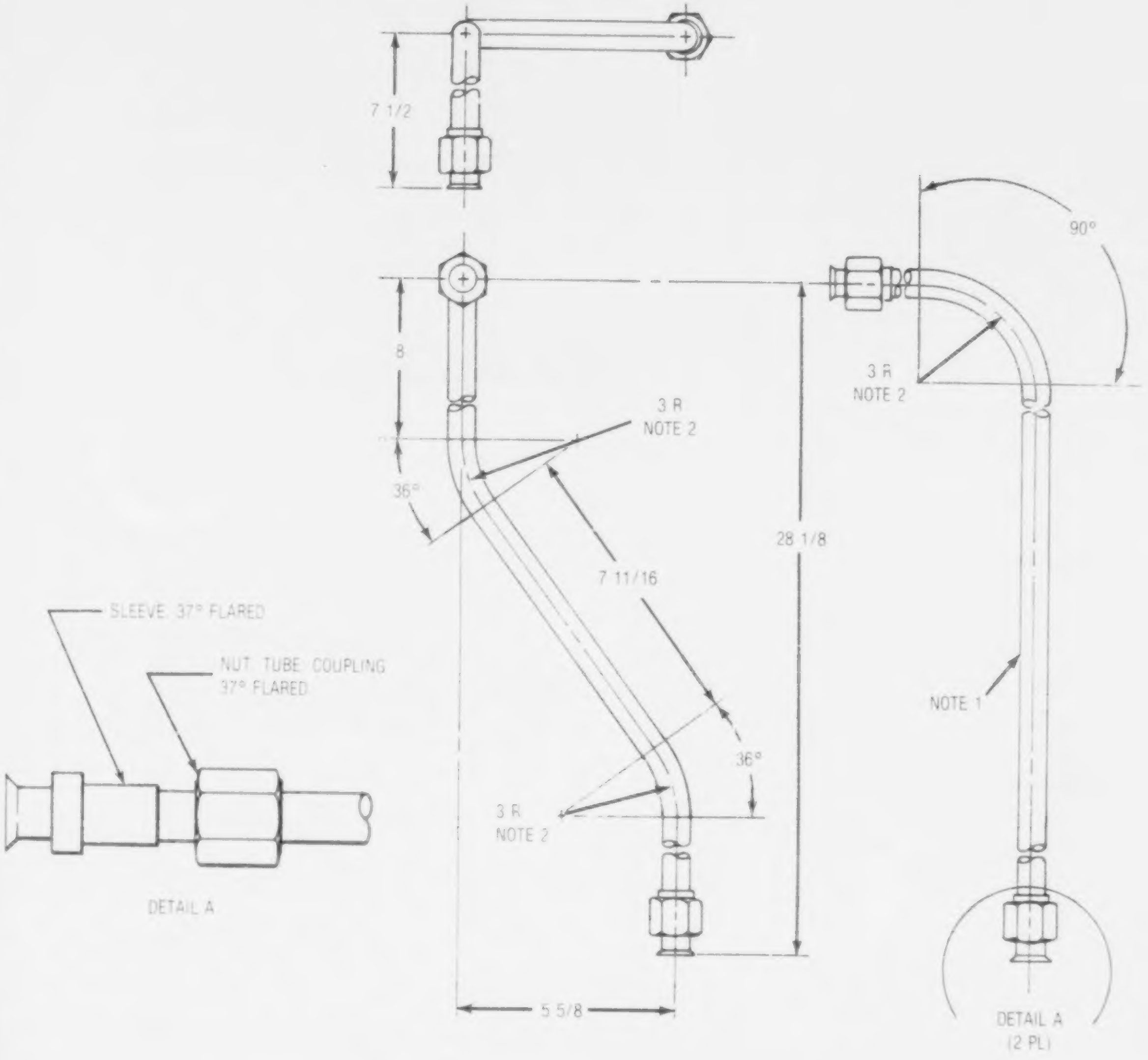
9289854 LAUNCHER BASEPLATE ASSEMBLY



NOTES:
Assemble following parts to make launcher baseplate assembly (9289854).

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	1095010932820	9290822	Vernier segment	1	ea
B		MS18154-140L	Hexagon head cap screw	18	ea
C		MS20002-C10	Countersunk and plain washer	18	ea
D	3110010911294	9313798	Thrust bearing ball	1	ea
E		MS20913-1J	Pipe plug	1	ea
F	536501105076	9289868	Plug spacer	1	ea
G		9289960	Oscillating drive assembly stop	2	ea
H		MS20002-C8	Countersunk and plain washer	4	ea
I		MS18154-117L	Hexagon head cap screw	4	ea

9290085 LAUNCHER MOTOR PRESSURE TUBE ASSEMBLY

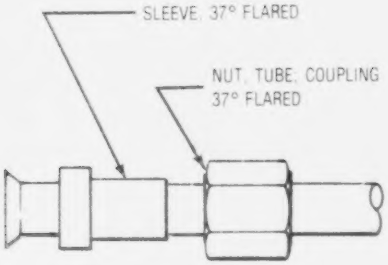


NOTES:

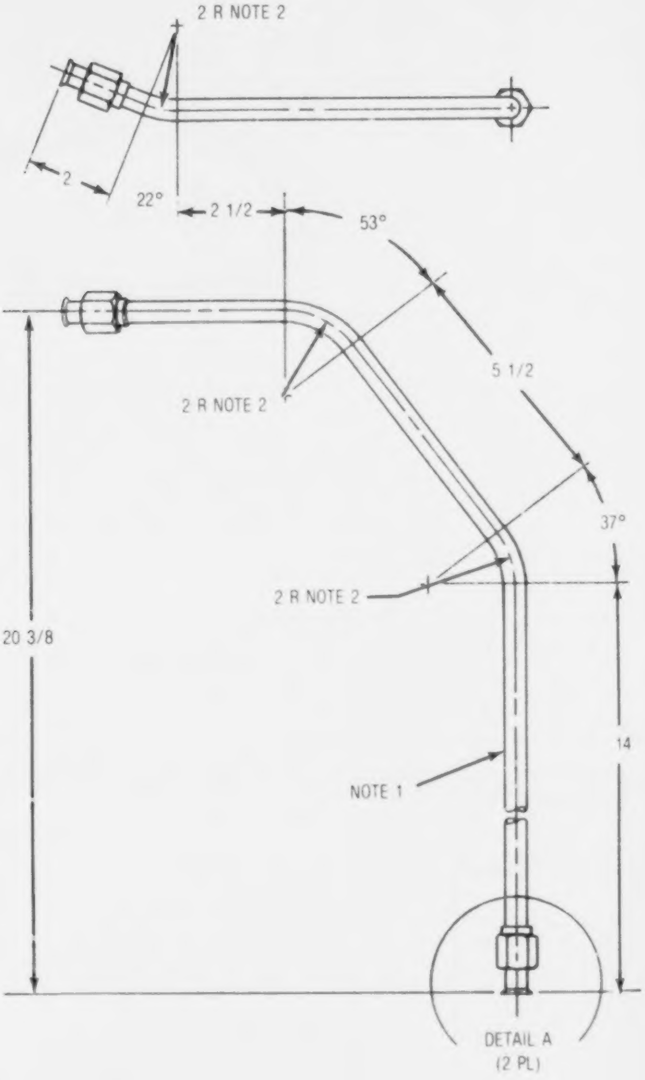
1. Cut 36 1/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4730-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290086 LAUNCHER MOTOR CASE DRAIN TUBE ASSEMBLY



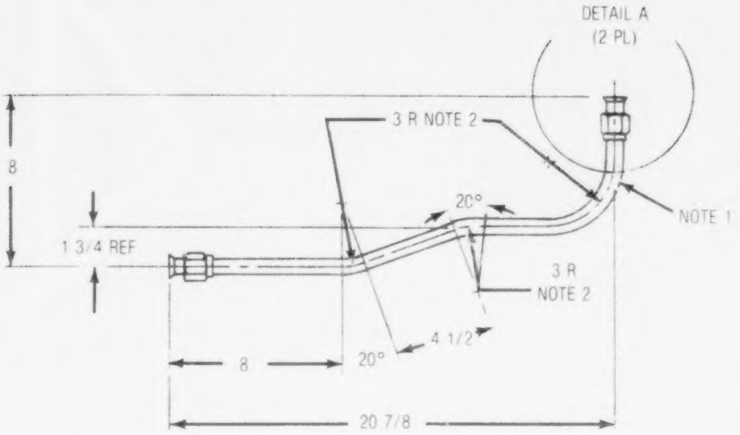
DETAIL A

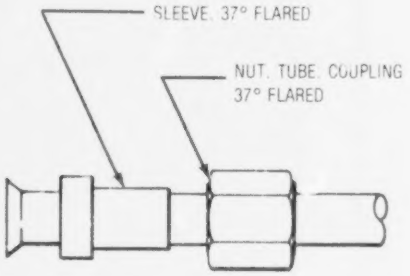


NOTES:

1. Cut 27 15/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9290087 LAUNCHER MOTOR RETURN TUBE ASSEMBLY





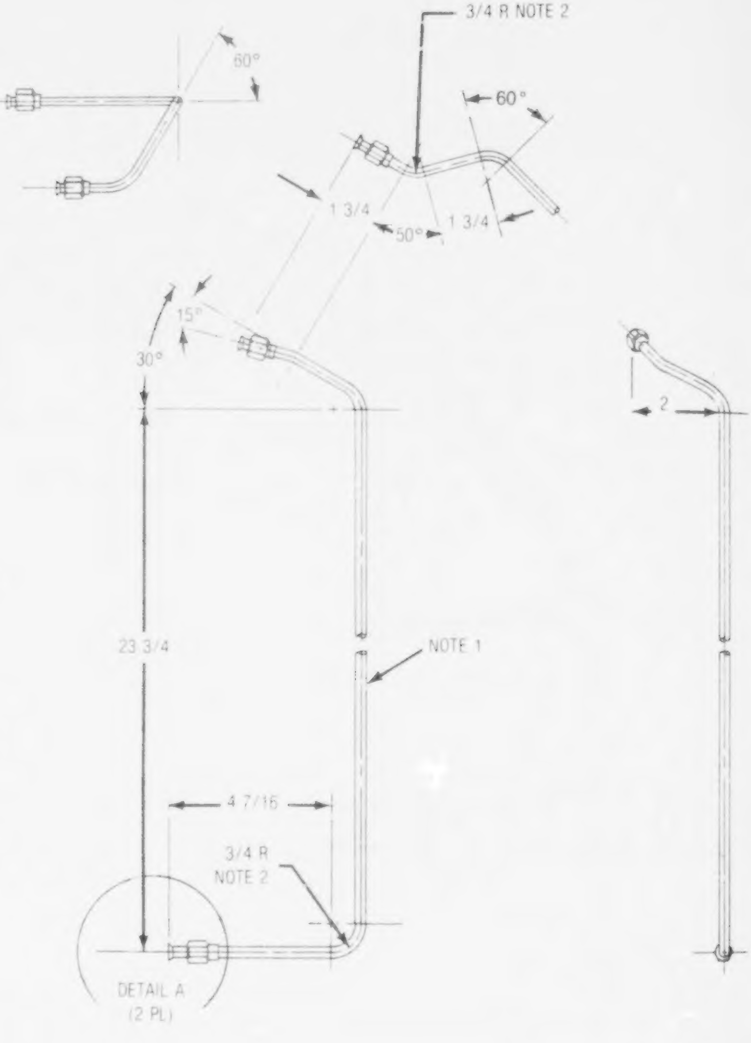
DETAIL A

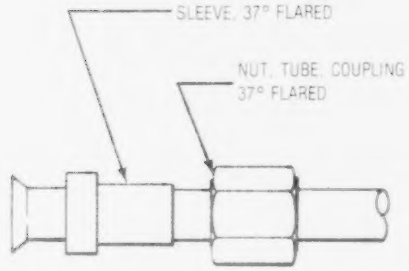
NOTES:

1. Cut 26 3/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4930-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290446 RETURN TO TANK PALLET TUBE ASSEMBLY



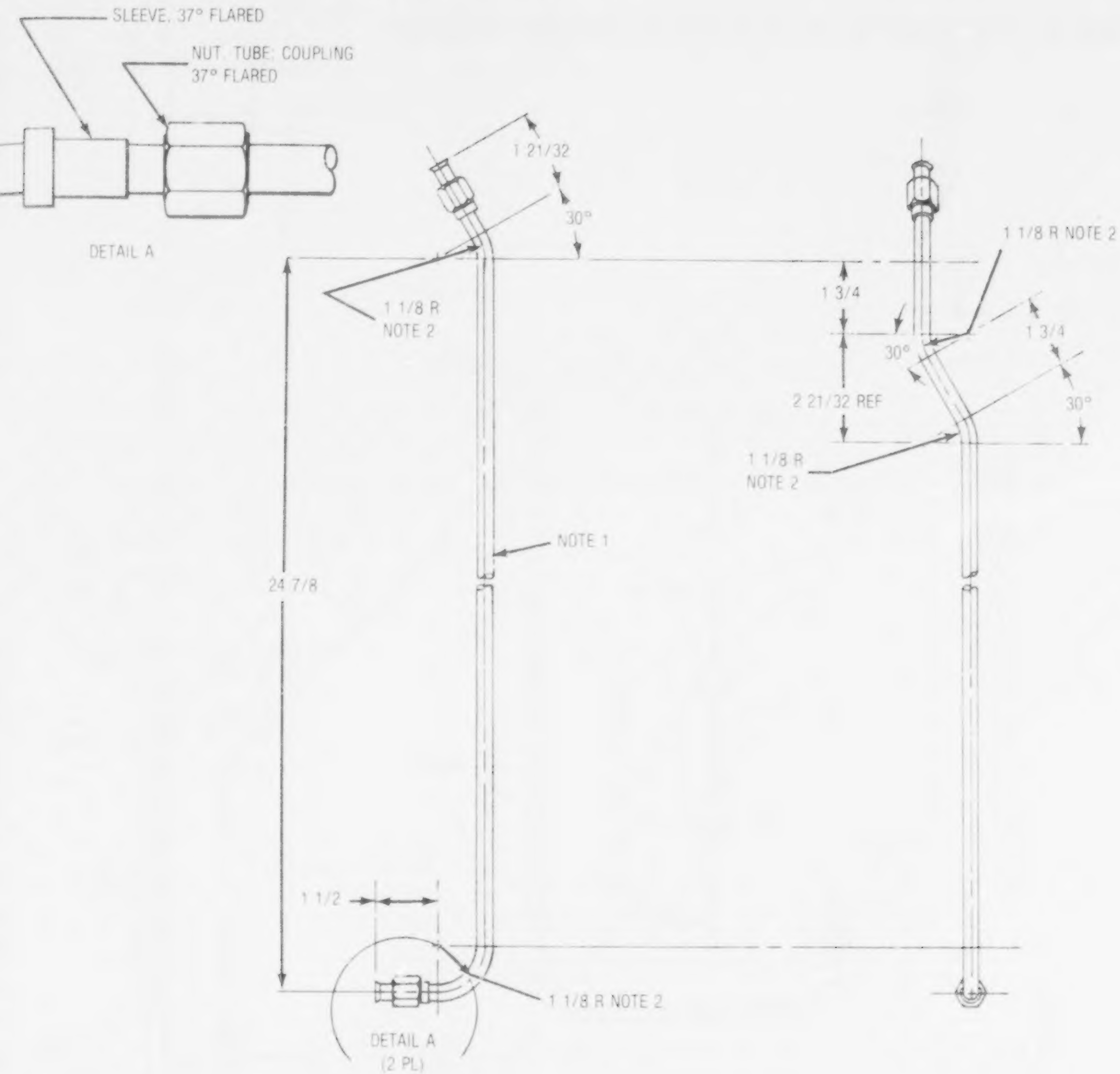


DETAIL A

NOTES:

1. Cut 33 3/8 inch tube for stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-314-8366) on each end of tube.
5. Install 37° flared sleeve (4730-00-043-6300) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

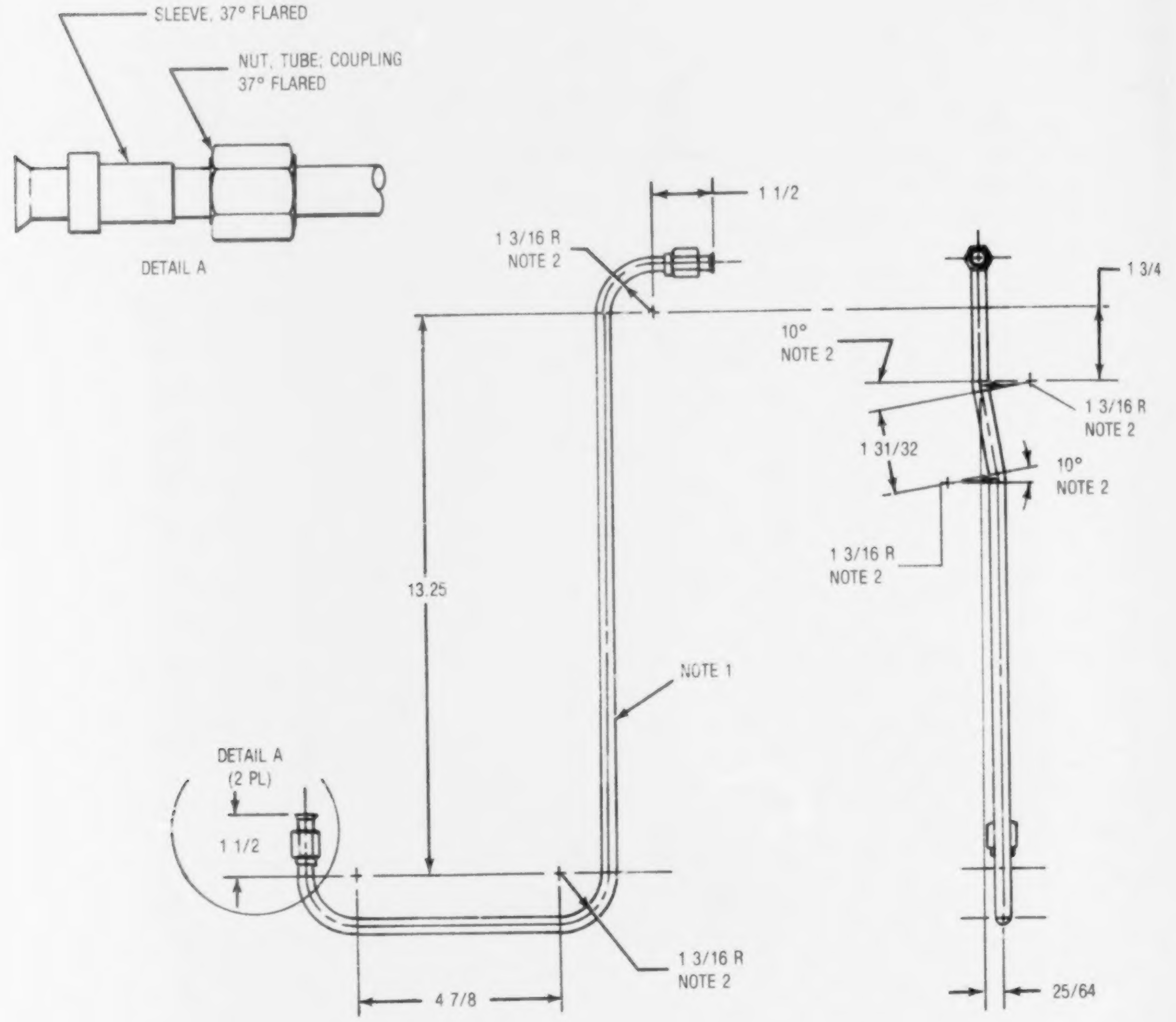
90447 SUCTION TO FUEL PUMP PALLET TUBE ASSEMBLY



TES:
Cut 29 9/16 inch tube from stock.
Bend tube.
Paint tube to 1 inch from ends of tube.
Install 37° flared tube coupling nut (4730-00-203-3831) on each end of tube.
Install 37° flared sleeve (4730-01-025-4161) on each end of tube.
Flare tube ends 37°.
All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

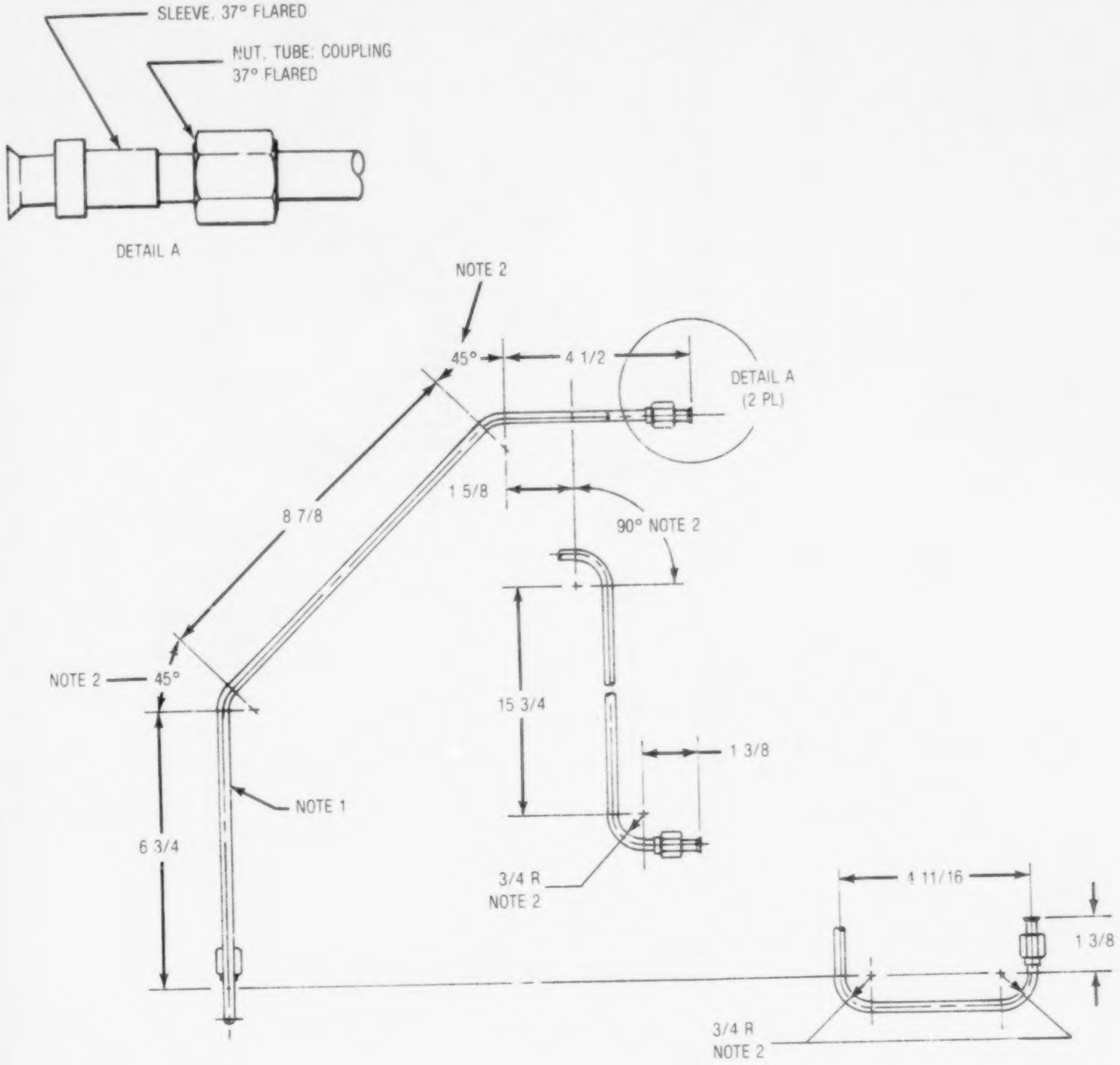
9290449 FUEL TANK TO PALLET SUCTION LINE TUBE ASSEMBLY



NOTES:

1. Cut 24 13/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-203-3831) on each end of tube.
5. Install 37° flared sleeve (4730-01-025-4161) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9290450 RETURN TO TANK FROM PALLET TUBE ASSEMBLY

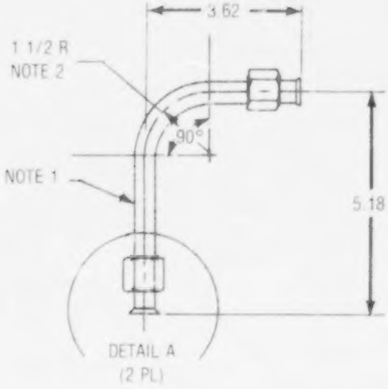


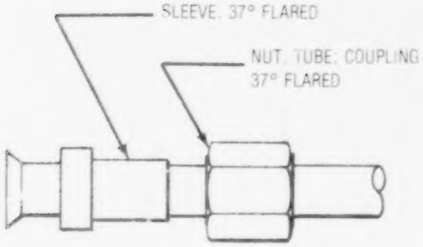
NOTES:

1. Cut 44 7/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-314-8366) on each end of tube.
5. Install 37° flared sleeve (4730-01-043-6300) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290496 JAM MINE CASE DRAIN TUBE ASSEMBLY



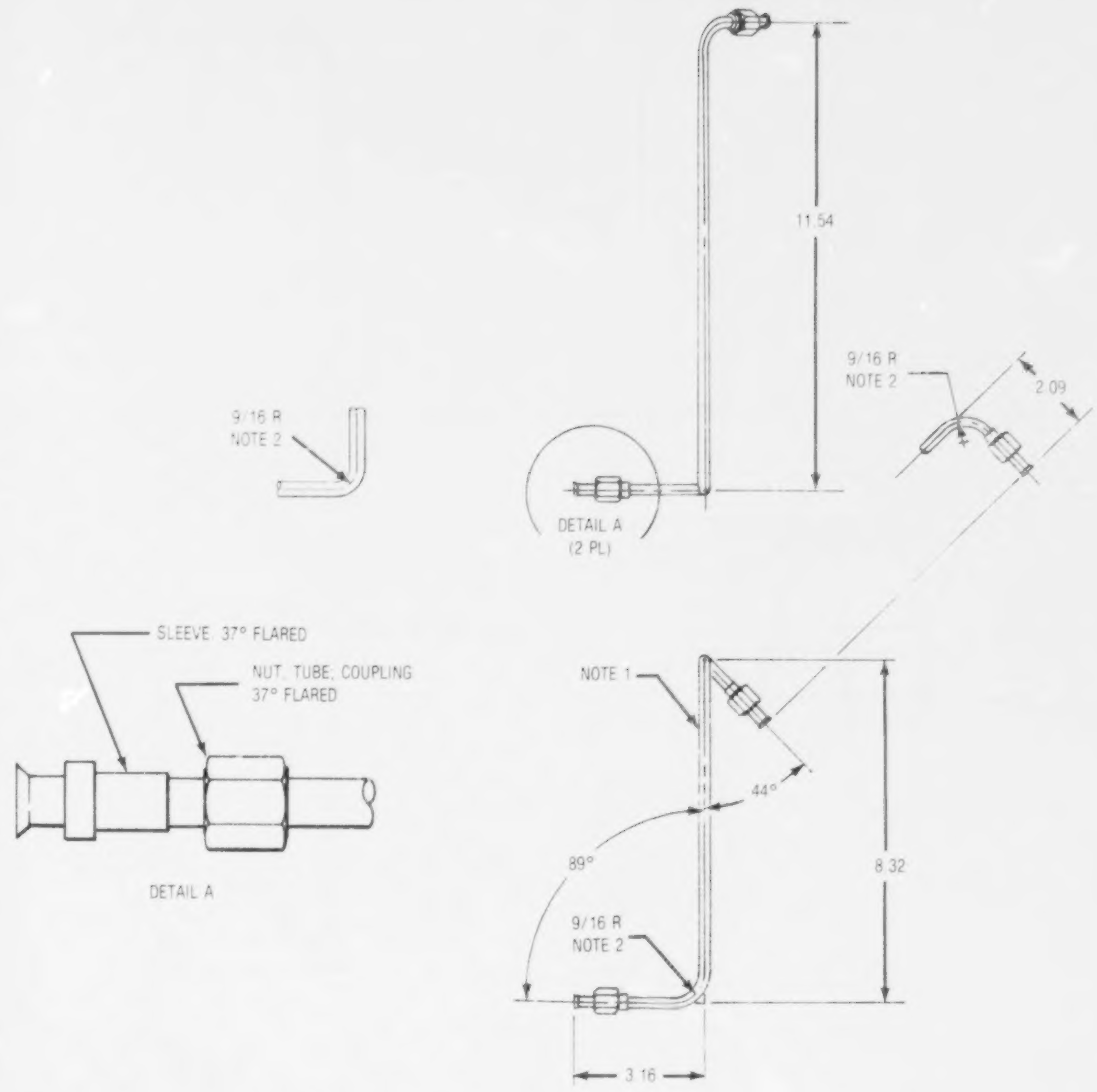


DETAIL A

NOTES:

1. Cut 8 3/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9290504 REAR DISC BRAKE TUBE ASSEMBLY

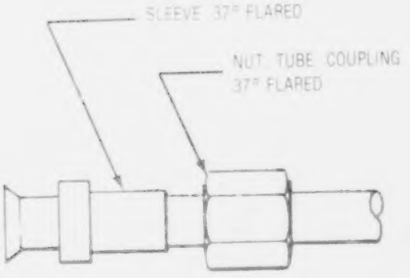


NOTES:

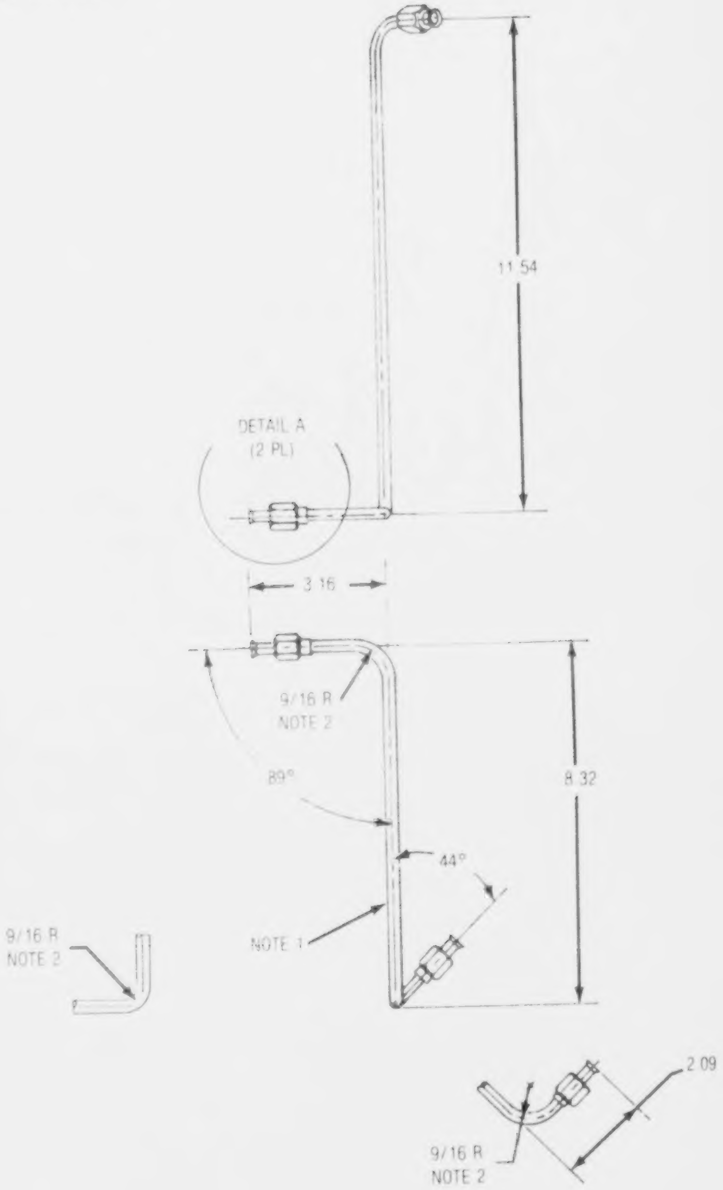
1. Cut 24 3/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-314-8366) on each end of tube.
5. Install 37° flared sleeve (4730-01-043-6300) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290505 FRONT DISC BRAKE TUBE ASSEMBLY



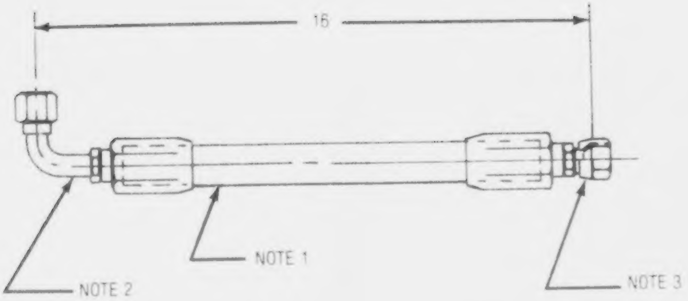
DETAIL A



NOTES:

1. Cut 24 3/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-314-8366) on each end of tube.
5. Install 37° flared sleeve (4730-01-043-6300) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9290551 FEED LINE A HOSE ASSEMBLY

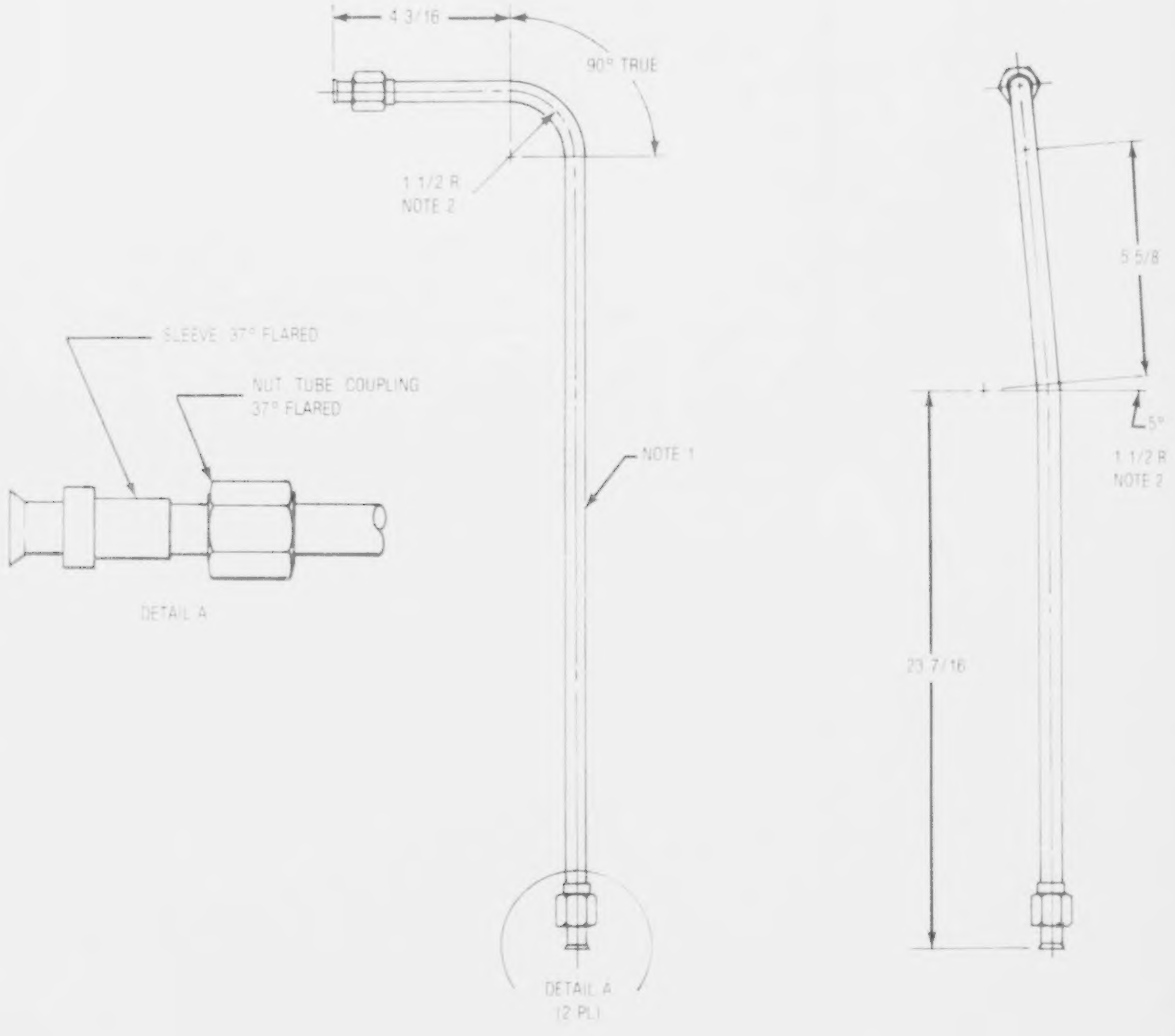


NOTES:

1. Cut 11 1/2 inch hose from 4720-01-018-6550 stock.
2. Install 37° flare, 90° bent tube hose coupling (4730-00-451-4620) on one end of hose.
3. Install 37° flare, 90° bent tube hose coupling (4730-00-451-2703) on other end of hose.
4. Dimension is in inches.
5. Tag with part number.

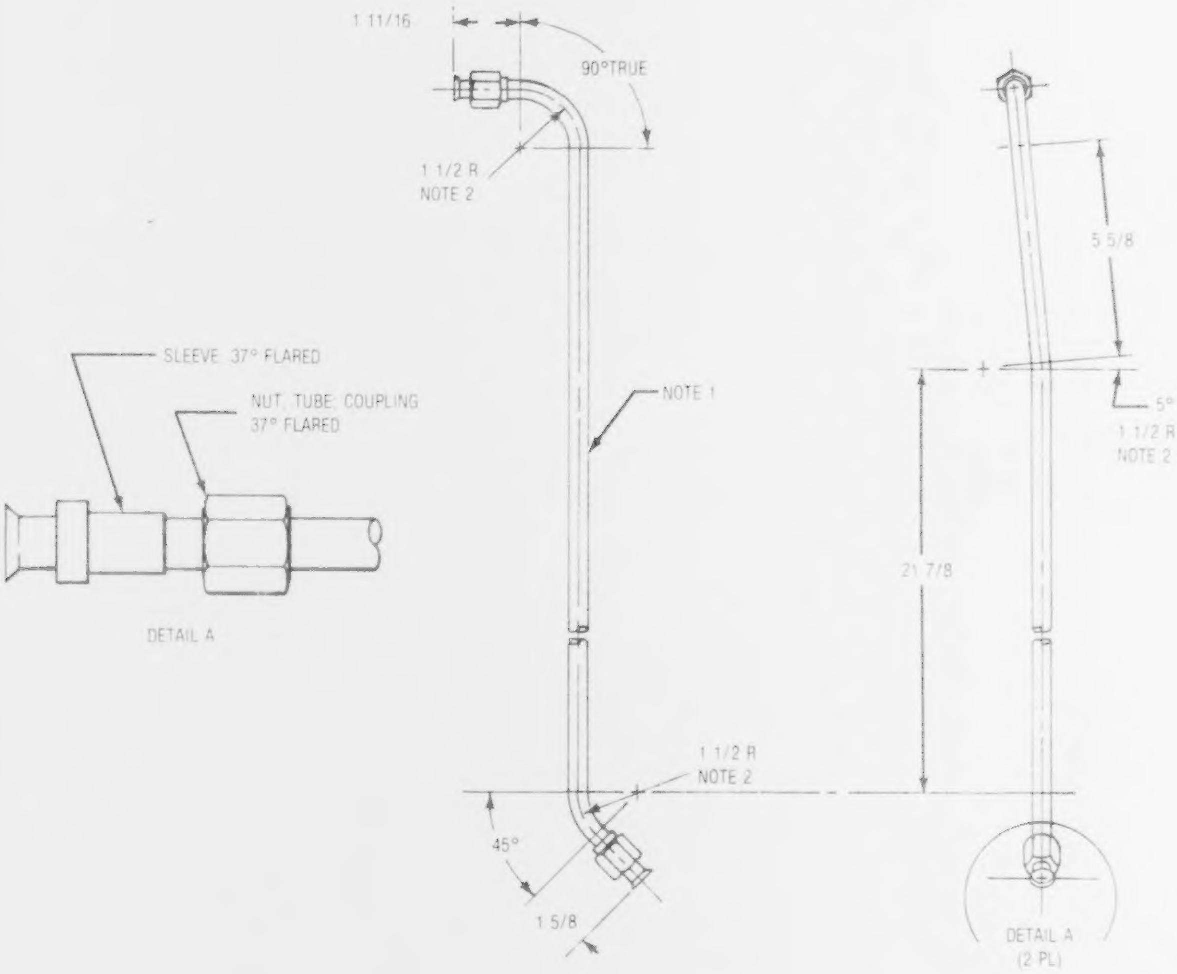
ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290571 MAGAZINE MOTOR LINE A TUBE ASSEMBLY



NOTES:
1. Cut 35 3/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9290572 MOTOR LINE B TUBE ASSEMBLY

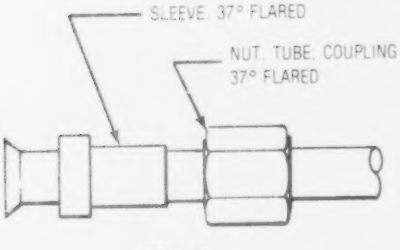


NOTES:

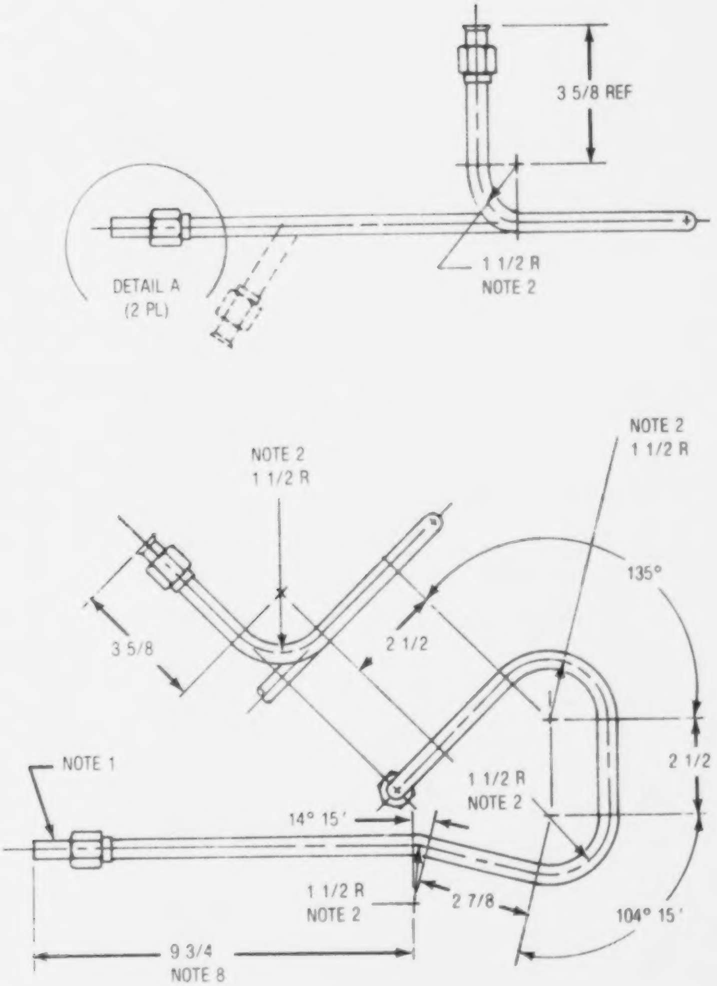
1. Cut 34 1/2 inch tube from   stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290573 MOTOR LINE B TUBE ASSEMBLY

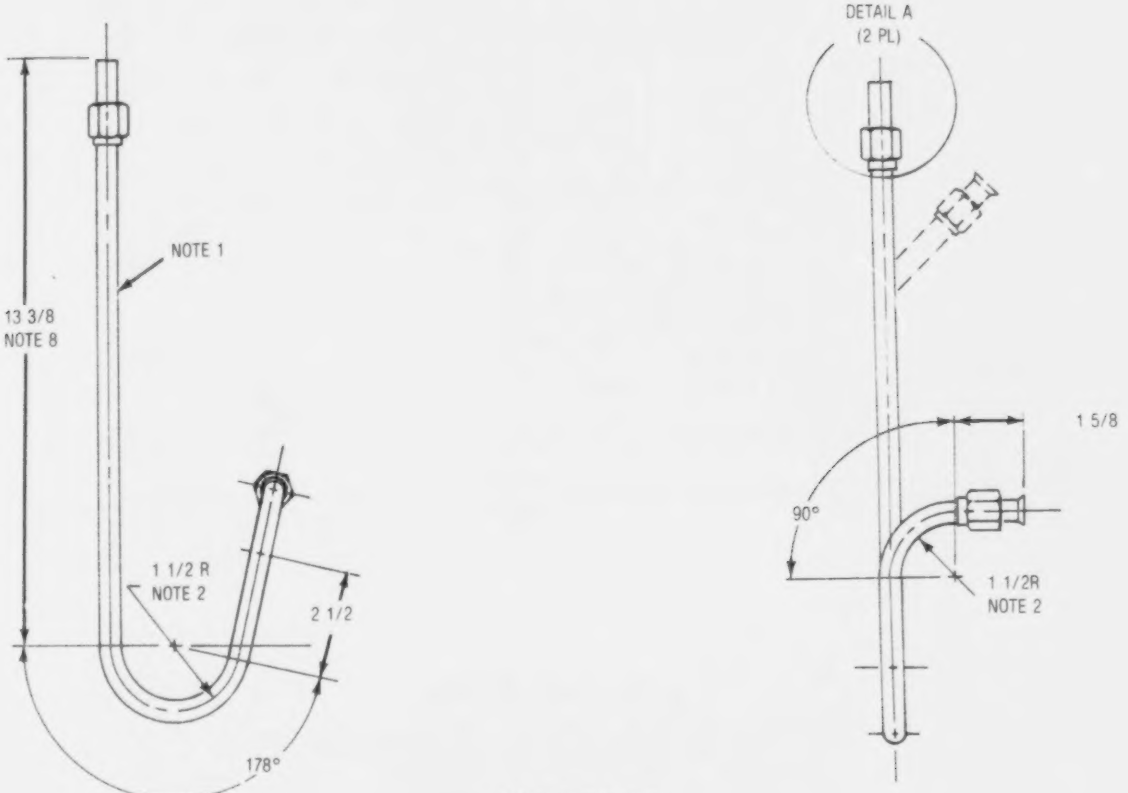


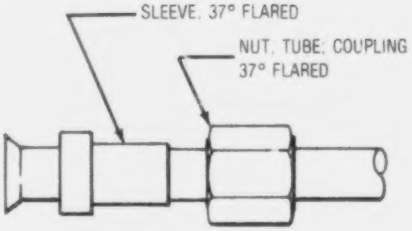
DETAIL A



NOTES:
1. Cut 30 1/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

9290574 MOTOR LINE A TUBE ASSEMBLY





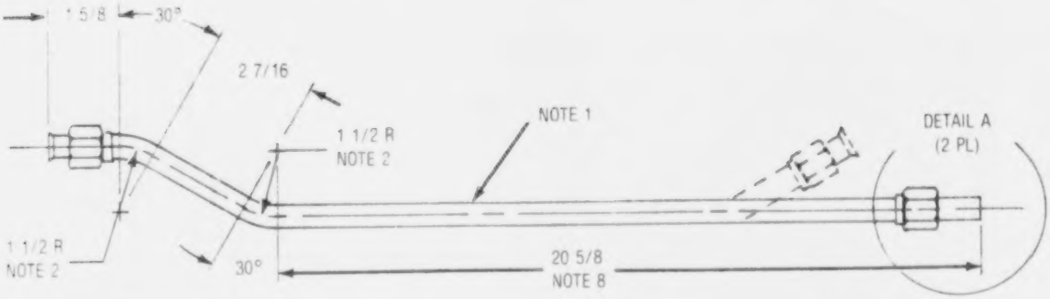
DETAIL A

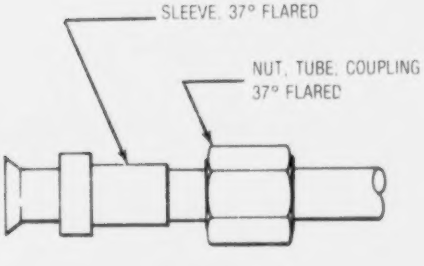
NOTES:

1. Cut 24 1/2 inch tube from   stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290575 DECK-TO-VALVE LINE A TUBE ASSEMBLY

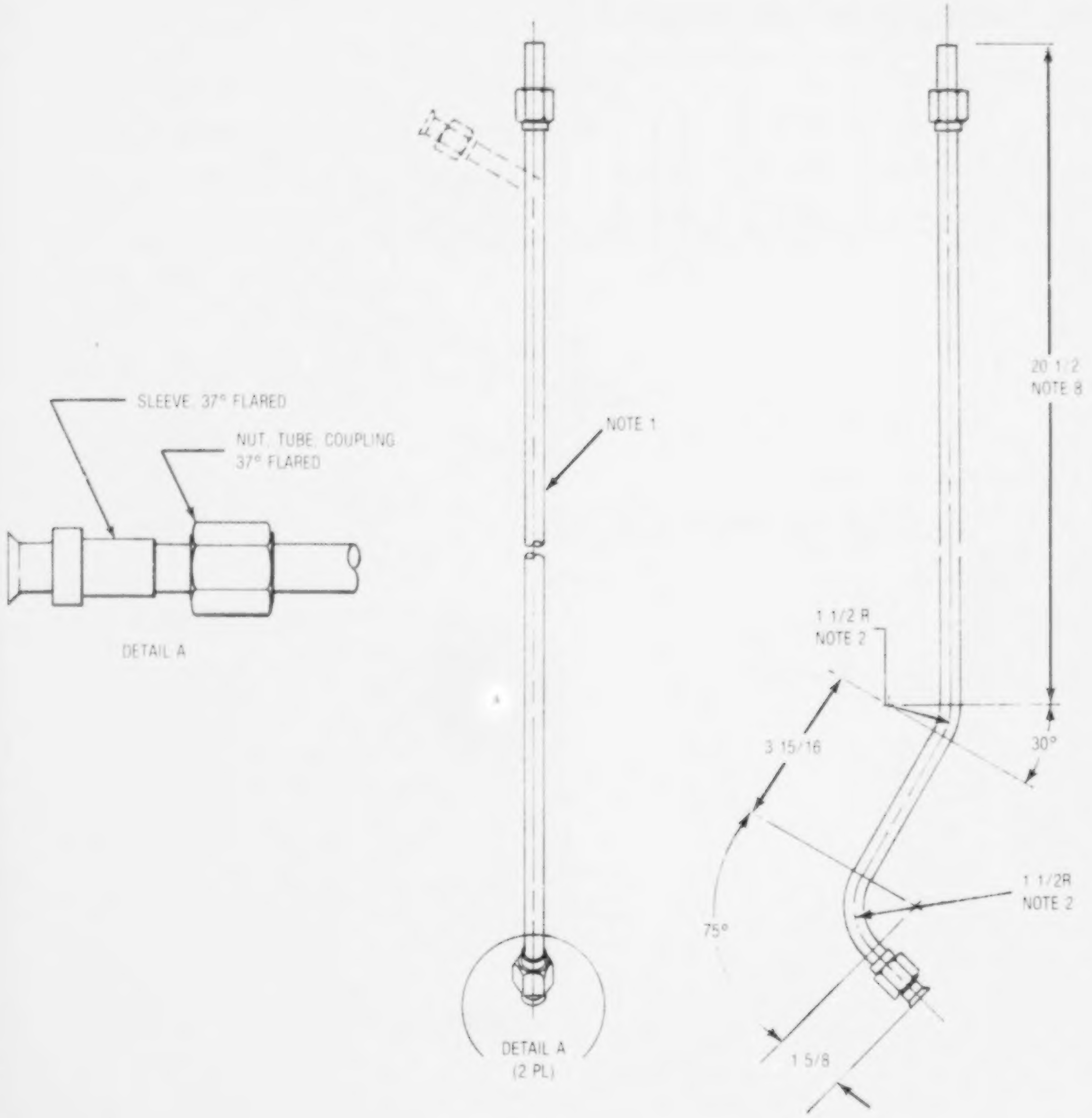




DETAIL A

NOTES:
1. Cut 26 1/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

9290576 DECK-TO-VALVE LINE B TUBE ASSEMBLY

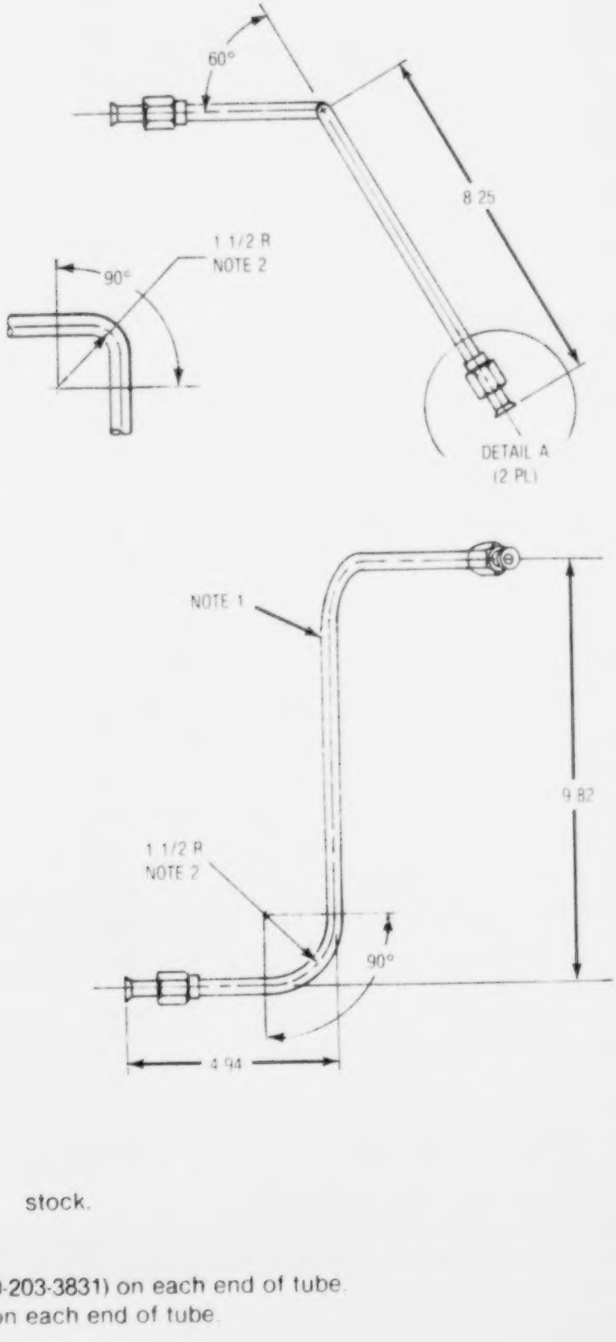


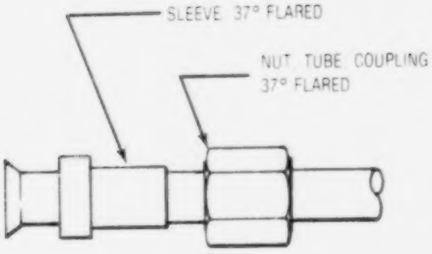
NOTES:

1. Cut 28 13/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9290600 JAM MINE SUPPLY TUBE ASSEMBLY



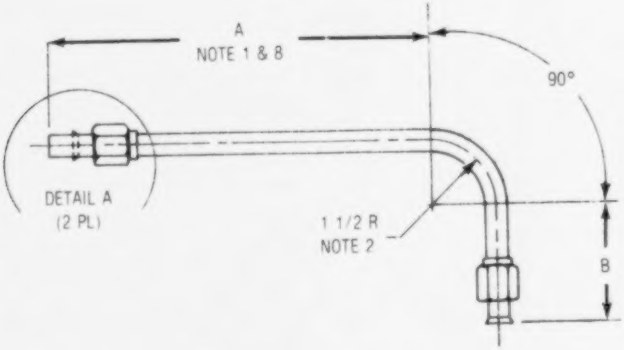


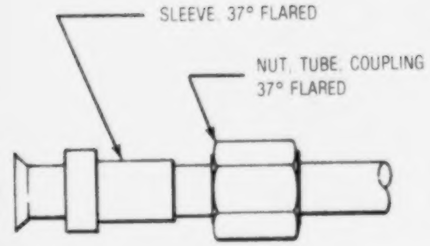
DETAIL A

NOTES:
1. Cut 21 3/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-203-3831) on each end of tube.
5. Install 37° flared sleeve (4730-01-025-4161) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

290697 -1, -2, -4, or -5 TUBE ASSEMBLY

Part No.	Name	Dimension A	Dimension B	Tube Length
9290697-1	Magazine Feed Line A Tube Assembly	11	4 1/4	17 5/8
9290697-2	Magazine Feed Line B Tube Assembly	9	2 3/4	14 1/8
9292697-4	Feed Line A Tube Assembly	11 1/2	4 1/2	18 3/8
9290697-5	Feed Line B Tube Assembly	9 1/2	2 1/4	14 1/8



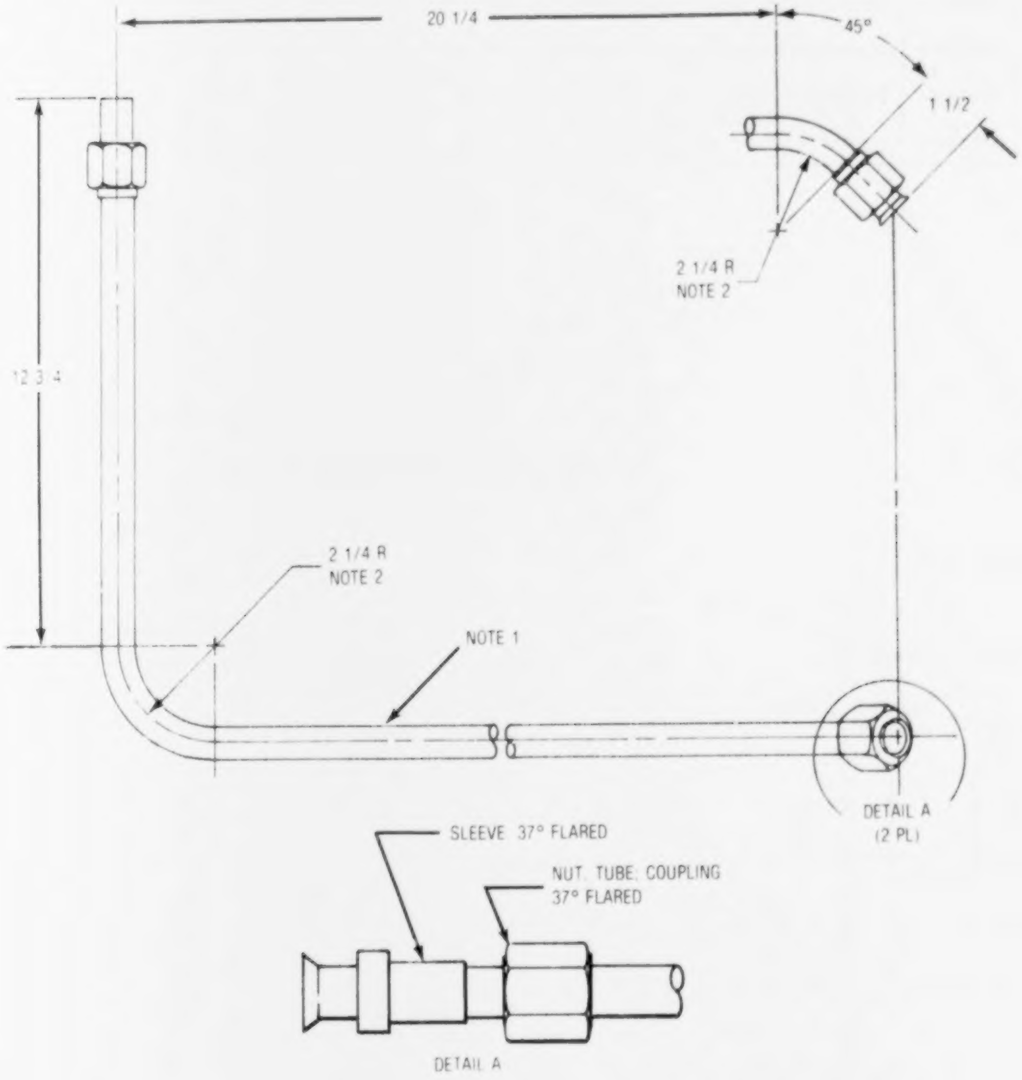


DETAIL A

NOTES:
1. Cut (see above chart) tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. Dimension is in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

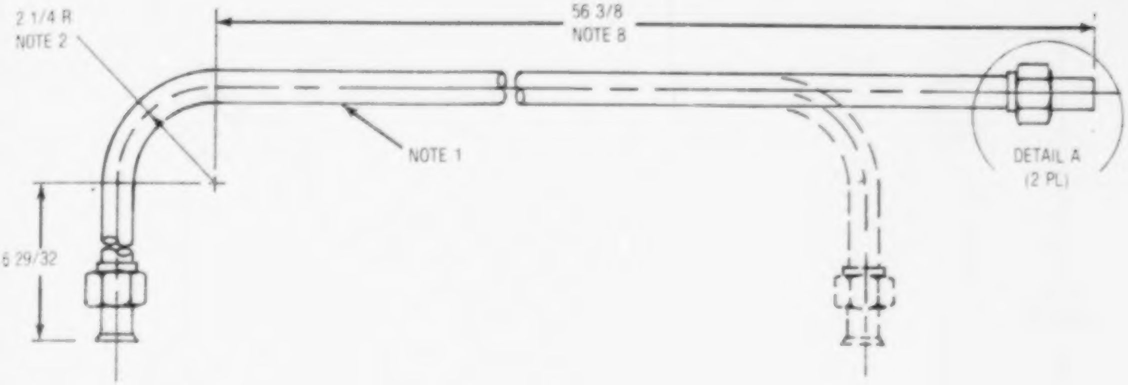
9290922 PUMP-TO-RELIEF VALVE TUBE ASSEMBLY

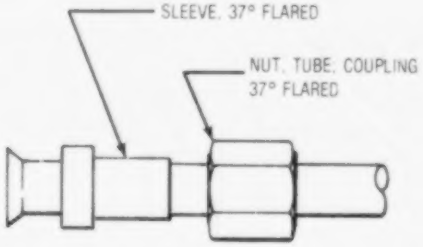


NOTES:

1. Cut 39 13/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4730-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

9290923 RUN VALVE-TO-RELIEF VALVE RETURN TUBE ASSEMBLY





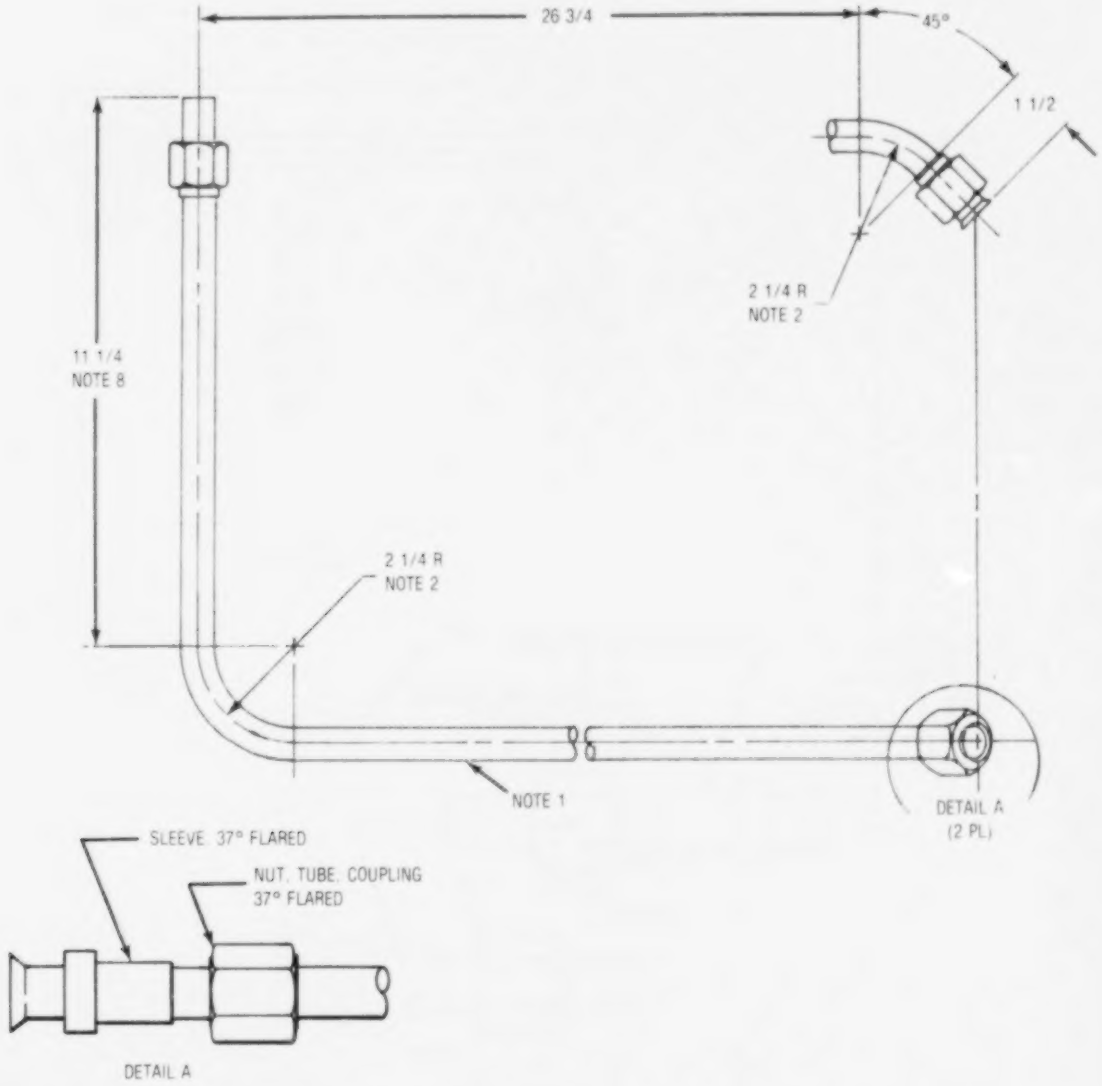
DETAIL A

NOTES:

1. Cut 66 13/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4730-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

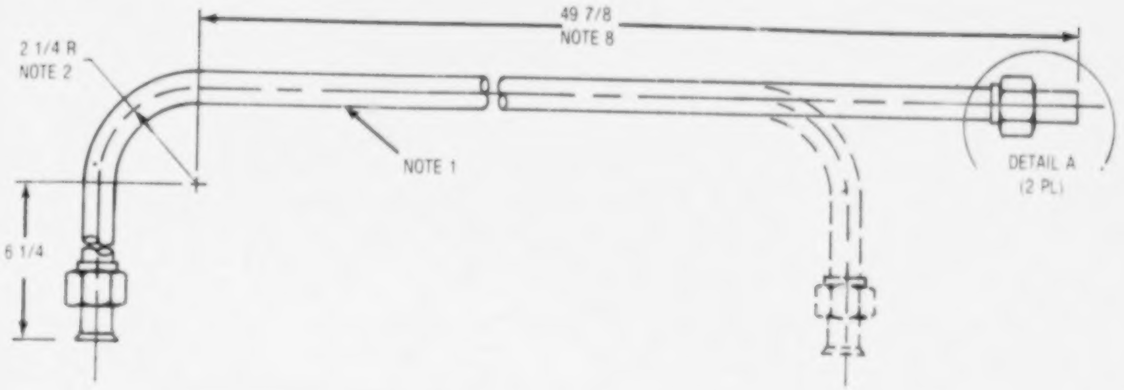
9290924 RELIEF VALVE-TO-PUMP RETURN TUBE ASSEMBLY

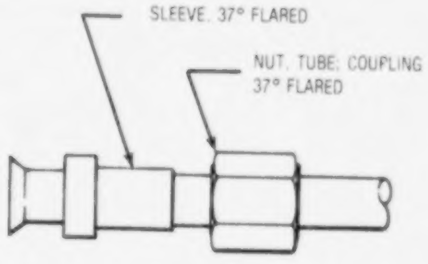


NOTES:

1. Cut 44 13/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4730-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length and flare at final assembly to suit installation.

9290925 RELIEF VALVE-TO-RUN VALVE TUBE ASSEMBLY





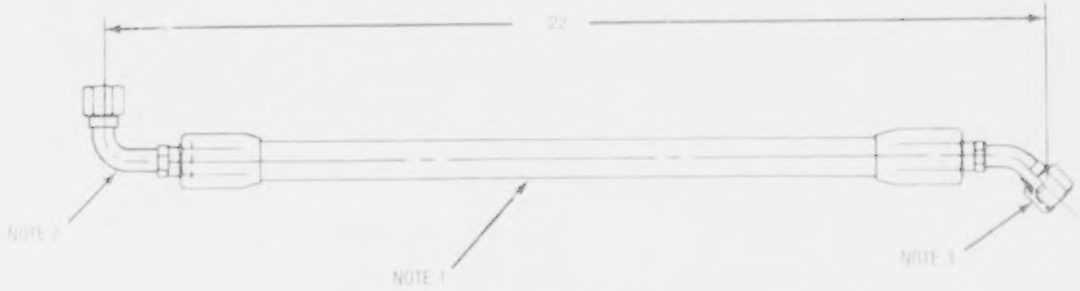
DETAIL A

NOTES:

1. Cut 59 11/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-812-0924) on each end of tube.
5. Install 37° flared sleeve (4730-01-050-0614) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

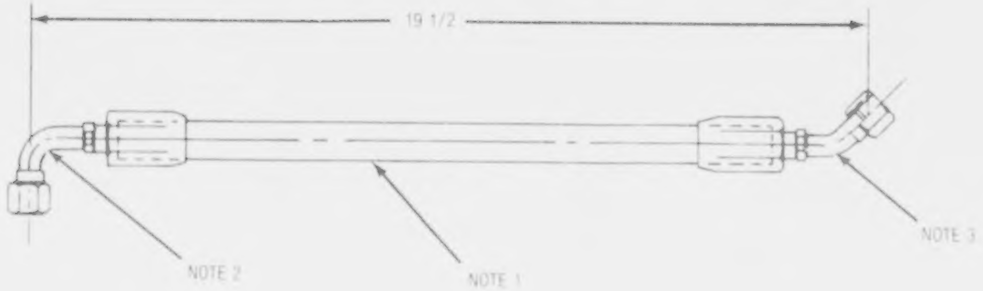
9291098 FEED B LINE HOSE ASSEMBLY



NOTES:

1. Cut 18 1/16 inch hose from 4720-01-018-6550 stock.
2. Install 37° flare, 90° bent tube hose coupling (4730-00-451-4620) on one end of hose.
3. Install 37° flare, 45° bent tube hose coupling (4730-01-017-8284) on other end of hose.
4. Dimension is in inches.

9291099 FEED LINE A HOSE ASSEMBLY

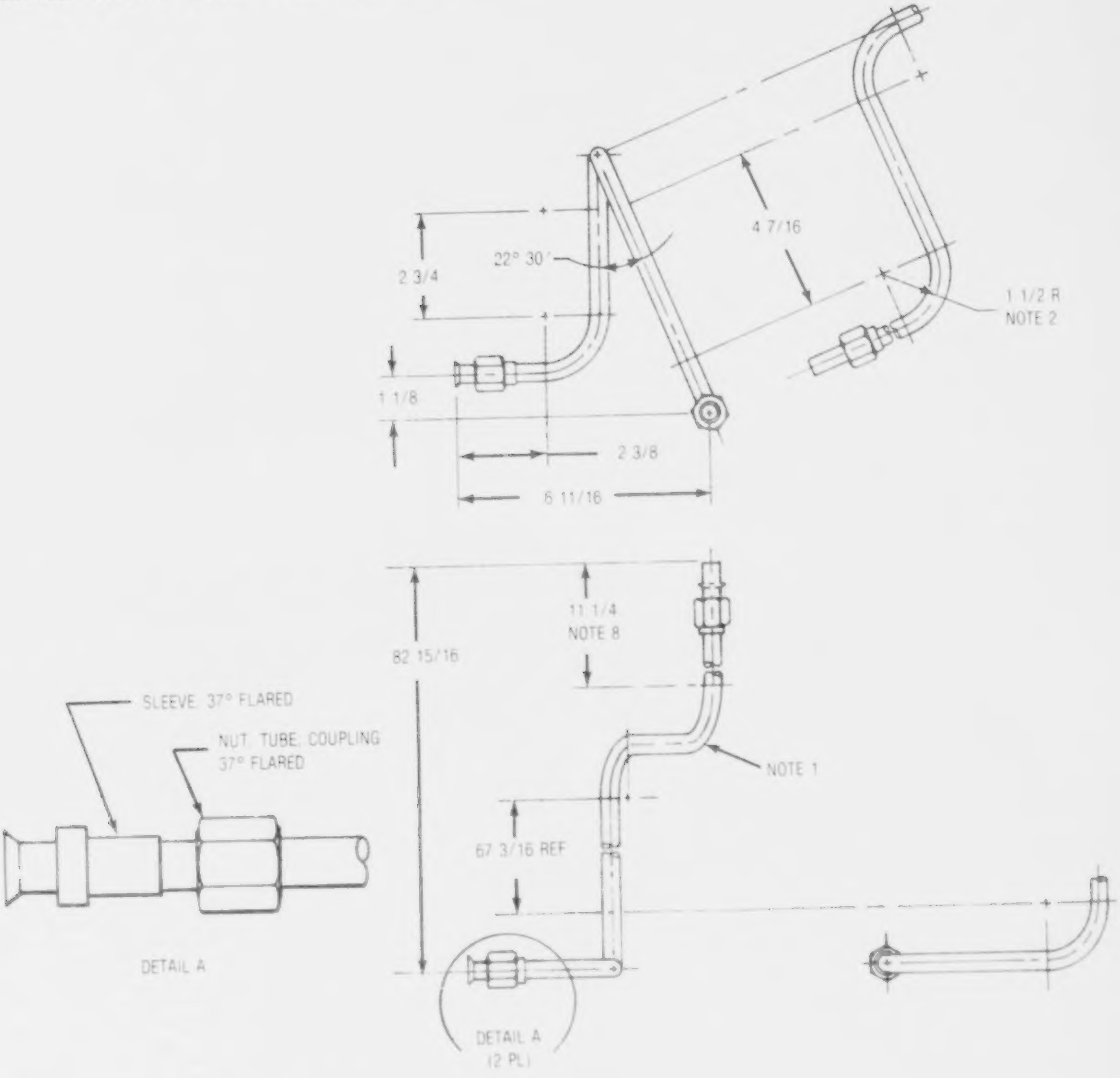


NOTES:

1. Cut 15 5/8 inch hose from (4720-01-018-6550) stock.
2. Install 37° flare, 90° bent tube hose coupling (4730-00-451-4620) on one end of hose.
3. Install 37° flare, 45° bent tube hose coupling (4730-01-017-8284) on other end of hose.
4. Dimension is in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

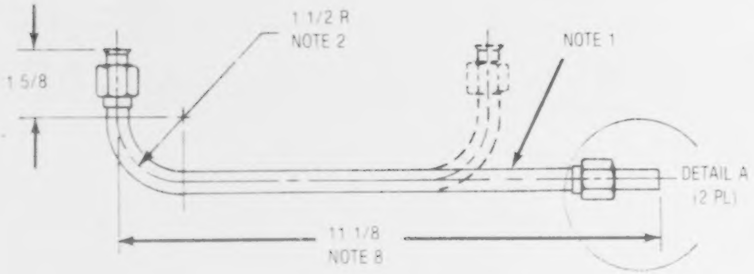
9291123 VALVE SUPPLY TUBE ASSEMBLY

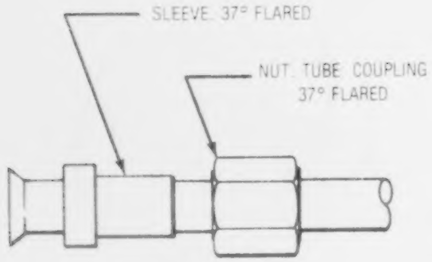


NOTES:

1. Cut 97 7/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to final length and flare at final assembly to suit installation.

9291126 CURVED OSCILLATOR CIRCUIT TUBE ASSEMBLY





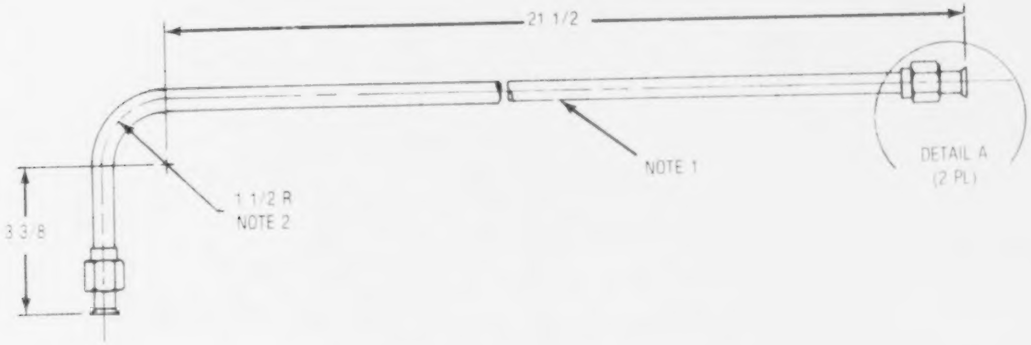
DETAIL A

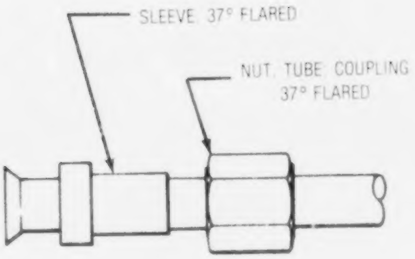
NOTES:

1. Cut 15 1/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length. Form and flare end to fit at final assembly.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291132 ROTARY ACTUATOR INBOARD TUBE ASSEMBLY

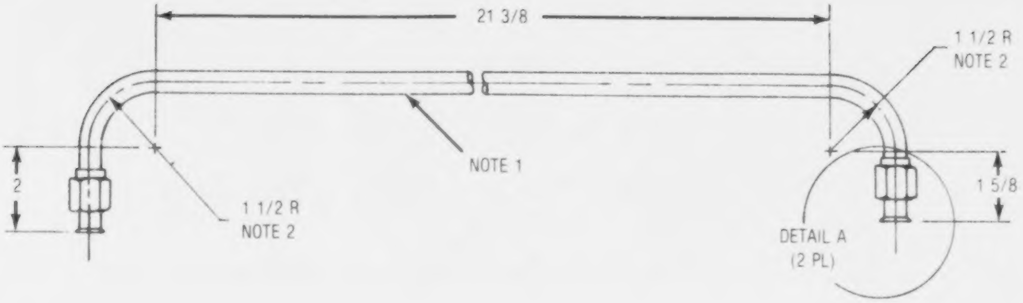


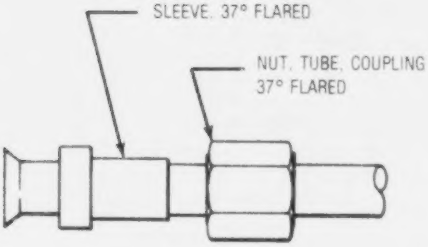


DETAIL A

NOTES:
1. Cut 27 1/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9291133 ROTARY ACTUATOR OUTBOARD TUBE ASSEMBLY





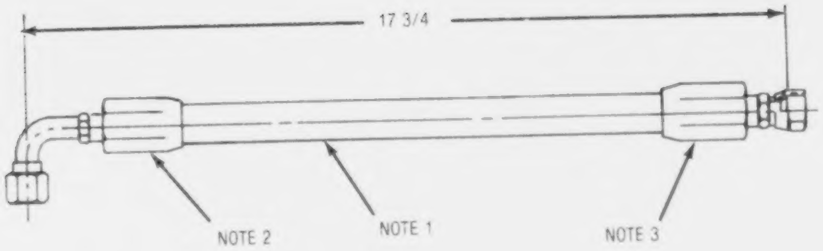
DETAIL A

NOTES:

1. Cut 29 3/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

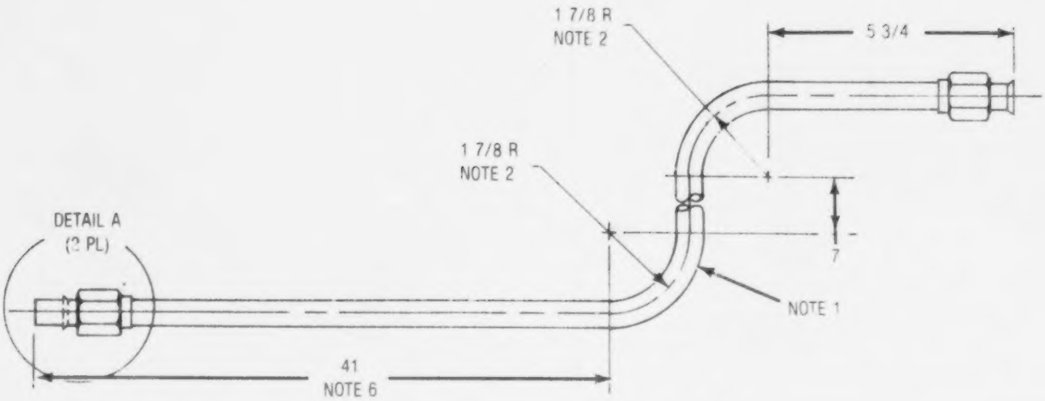
9291136 OSCILLATOR FILTER OUTPUT HOSE ASSEMBLY

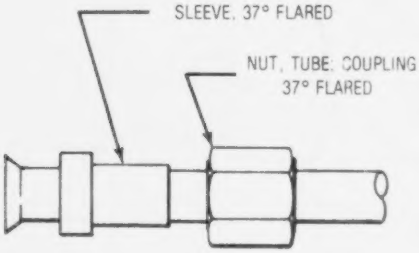


NOTES:

1. Cut 13 1/4 inch hose from 4720-01-018-6550 stock.
2. Install 37° flare, 90° bent tube hose coupling (4730-01-017-8284) on one end of hose.
3. Install 37° flare, straight tube hose coupling (MS 52525/1-8B-8) on other end of hose.
4. Dimension is in inches.

9291148 MOTOR DRAIN TUBE ASSEMBLY





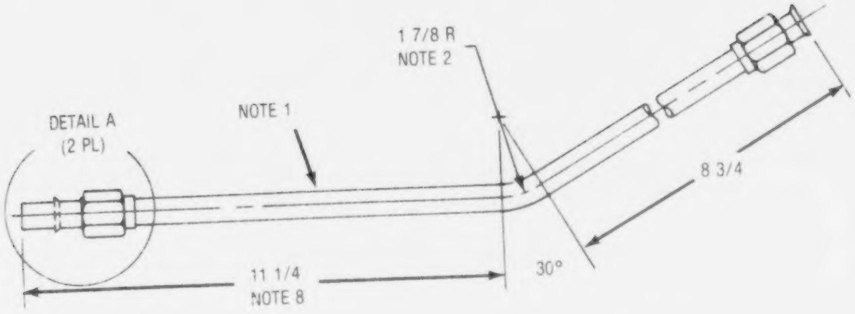
DETAIL A

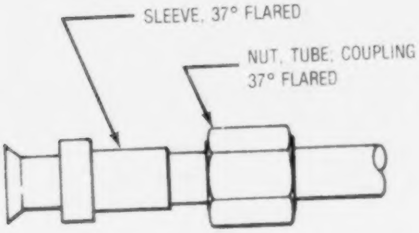
NOTES:

1. Cut 59 5/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-897-2043) on each end of tube.
5. Install 37° flared sleeve (4730-00-895-2975) on each end of tube.
6. Cut to finished length and flare at final assembly to suit installation.
7. Flare tube ends 37°.
8. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291149 MOTOR DRAIN TUBE ASSEMBLY



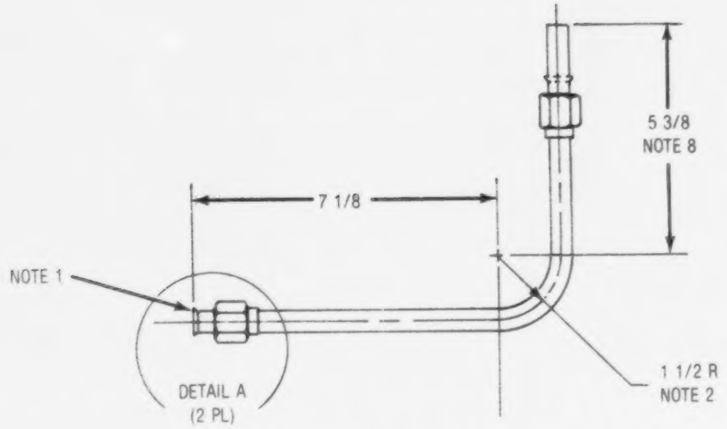


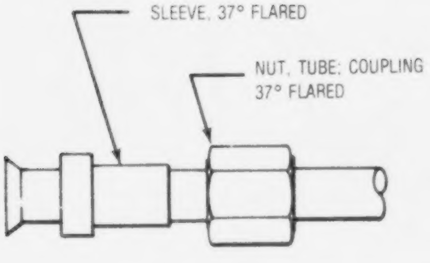
DETAIL A

NOTES:

1. Cut 21 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-897-2043) on each end of tube.
5. Install 37° flared sleeve (4730-00-895-2975) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length and flare at final assembly to suit installation.

9291150 RELIEF VALVE DRAIN TUBE ASSEMBLY





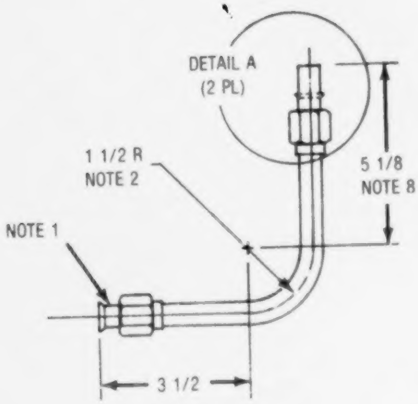
DETAIL A

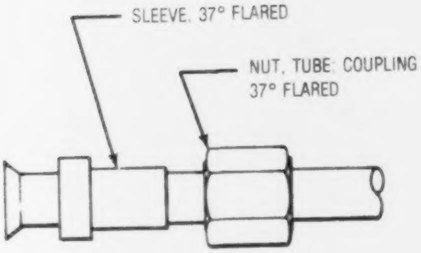
NOTES:

1. Cut 14 7/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length and flare at final assembly to suit installation.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291151 RELIEF VALVE-TO-DECK TUBE ASSEMBLY



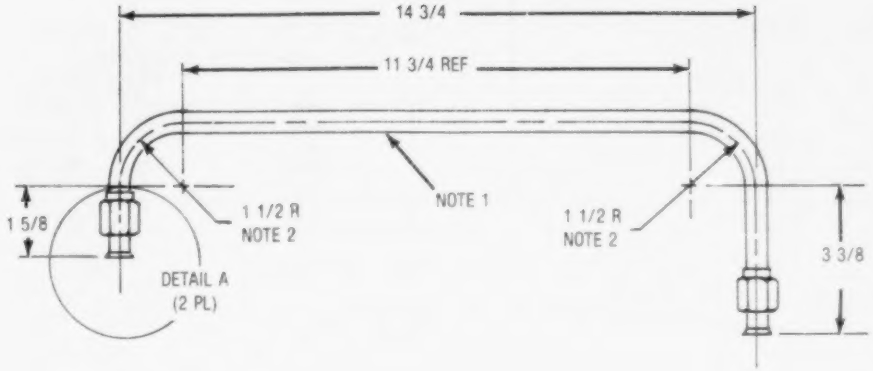


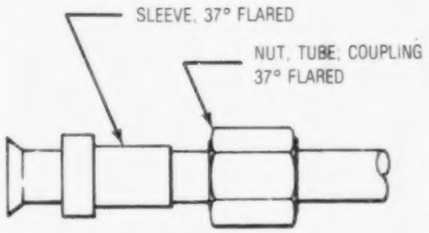
DETAIL A

NOTES:

1. Cut 11 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length and flare at final assembly to suit installation.

9291154 PORT A TUBE ASSEMBLY





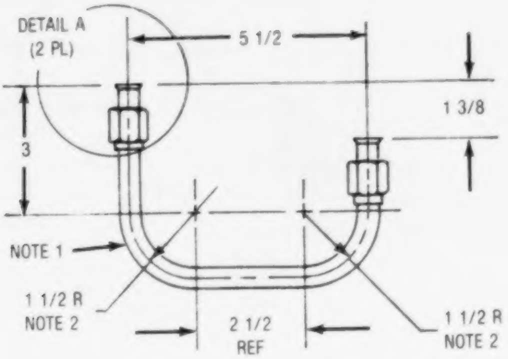
DETAIL A

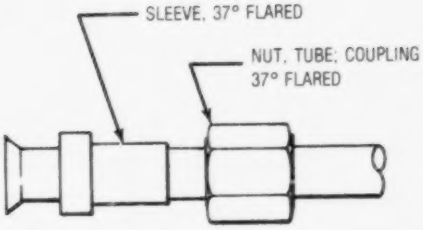
NOTES:

1. Cut 21 1/2 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291155 ROTARY ACTUATOR FRONT PORT TUBE ASSEMBLY



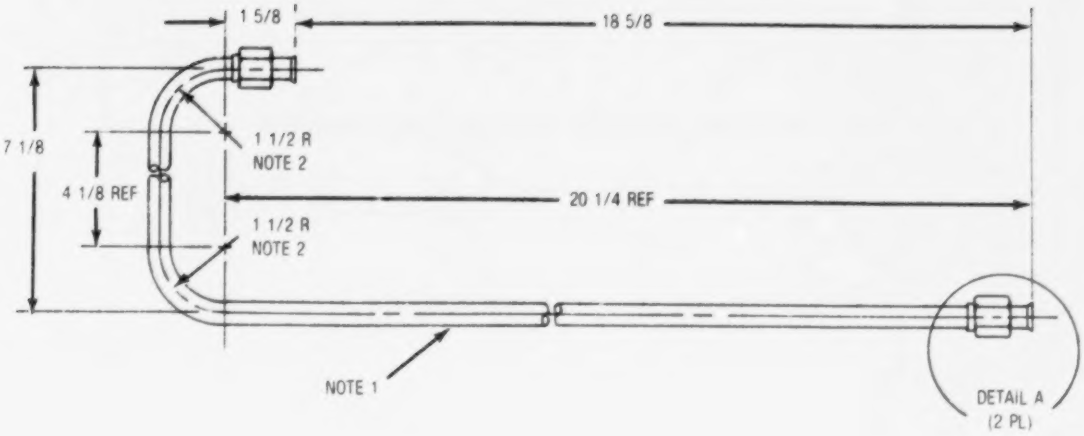


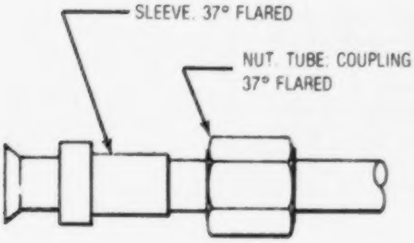
DETAIL A

NOTES:

1. Cut 11 7/8 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9291156 PORT B TUBE ASSEMBLY



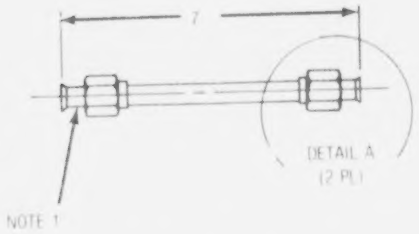


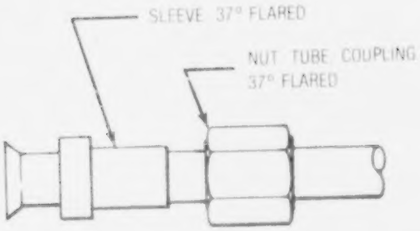
DETAIL A

NOTES:
1. Cut 30 3/4 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291157 STRAIGHT OSCILLATOR CIRCUIT TUBE ASSEMBLY

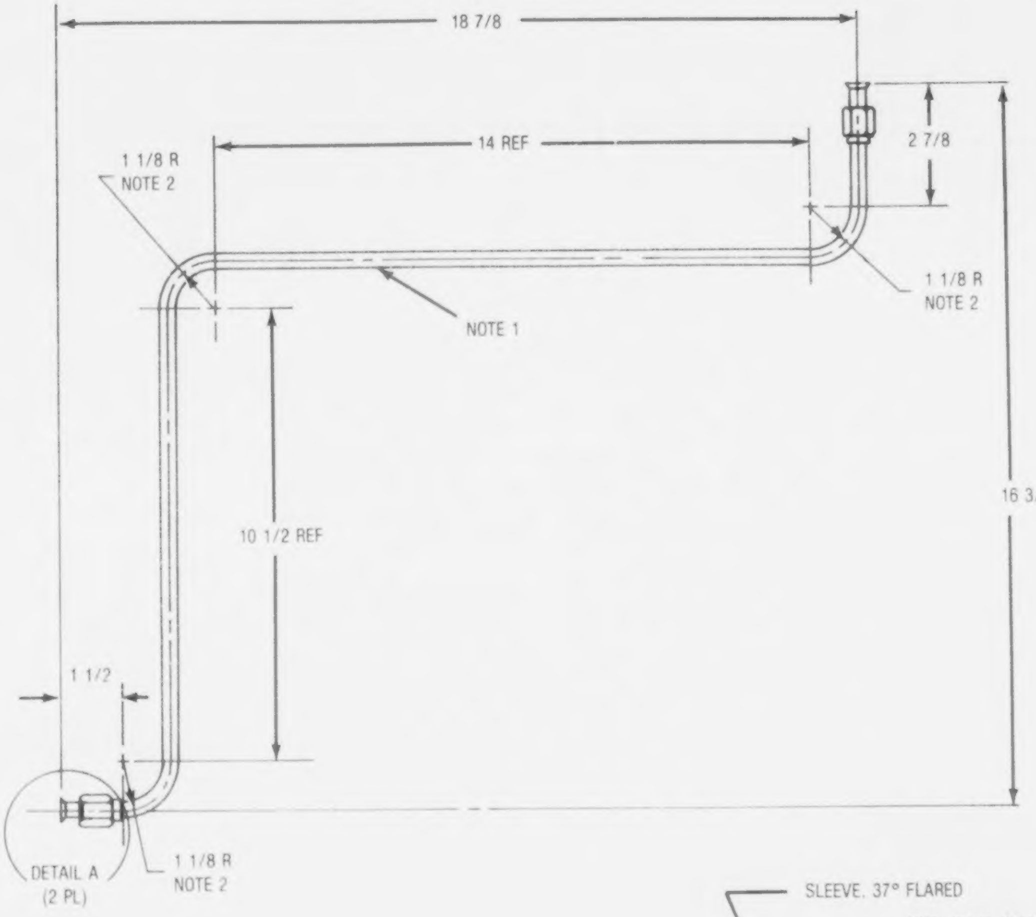


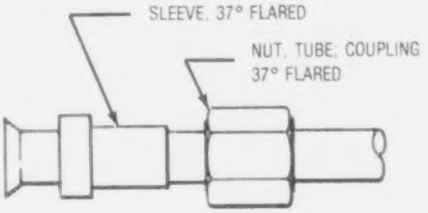


DETAIL A

NOTES:
1. Cut 7 inch tube from stock.
2. Paint tube to 1 inch from ends of tube.
3. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
4. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
5. Flare tube ends 37°.
6. Dimension is in inches.

9291158 MANUAL BYPASS RUN TUBE ASSEMBLY



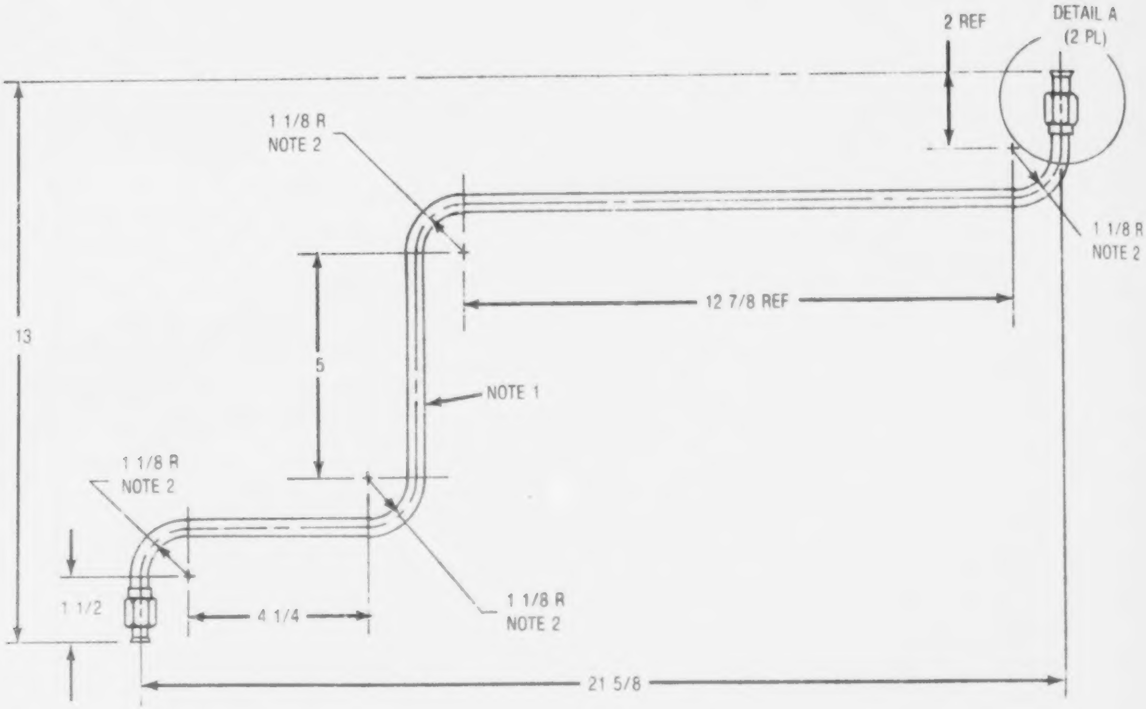


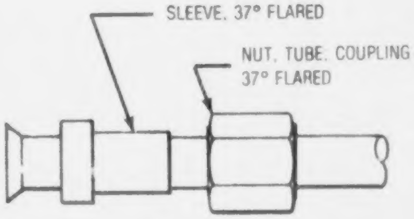
DETAIL A

NOTES:
1. Cut 34 3/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-203-3831) on each end of tube.
5. Install 37° flared sleeve (4730-01-025-4161) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291159 MANUAL BYPASS OPEN TUBE ASSEMBLY

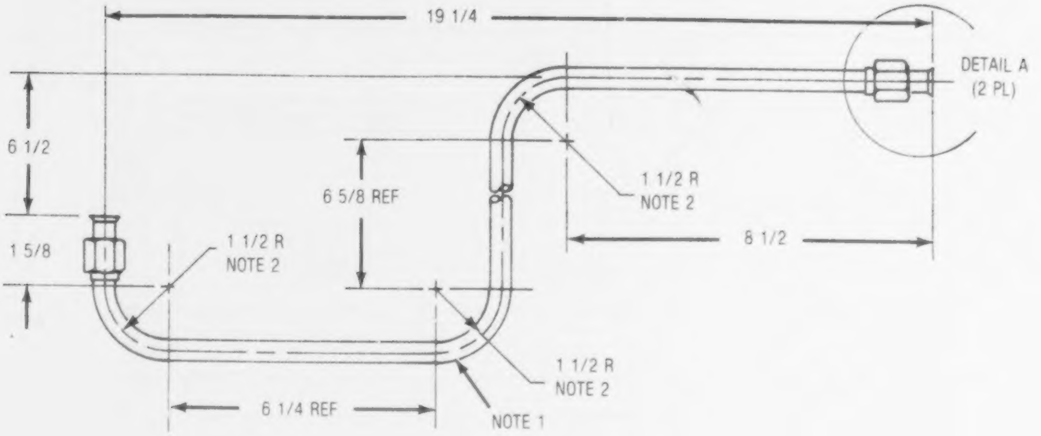


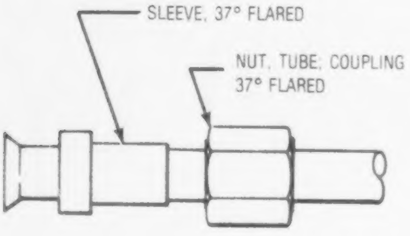


DETAIL A

NOTES:
1. Cut 32 11/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-203-3831) on each end of tube.
5. Install 37° flared sleeve (4730-01-025-4161) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

9291160 VALVE RETURN TUBE ASSEMBLY





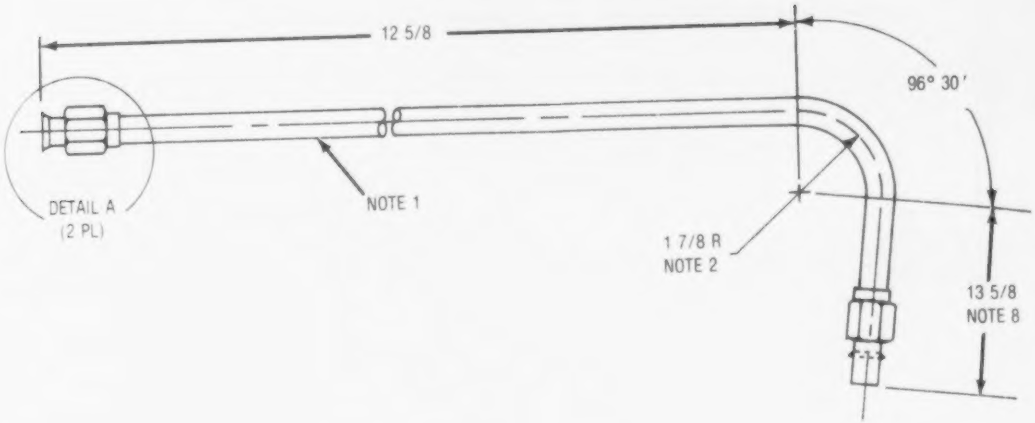
DETAIL A

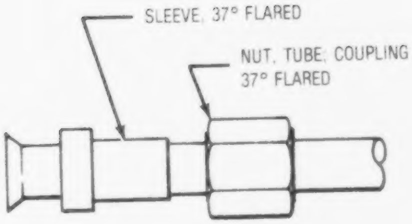
NOTES:

1. Cut 30 1/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-762-1239) on each end of tube.
5. Install 37° flared sleeve (4730-00-314-7754) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291161 LAUNCHER MOTOR DRAIN TUBE ASSEMBLY

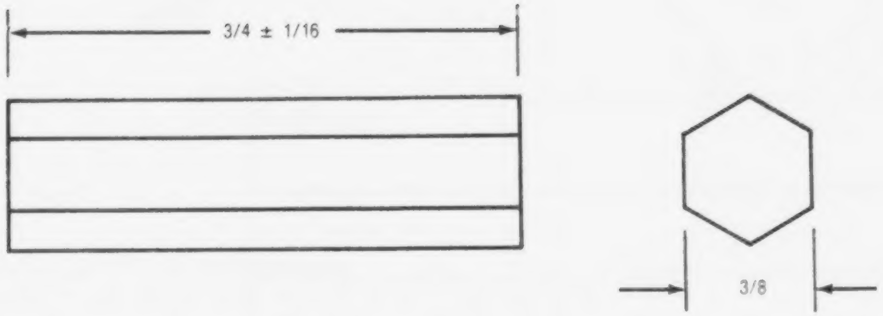




DETAIL A

NOTES:
1. Cut 29 7/16 inch tube from stock.
2. Bend tube.
3. Paint tube to 1 inch from ends of tube.
4. Install 37° flared tube coupling nut (4730-00-897-2043) on each end of tube.
5. Install 37° flared sleeve (4700-00-895-2975) on each end of tube.
6. Flare tube ends 37°.
7. All dimensions are in inches.
8. Cut to finished length and flare at final assembly to suit installation.

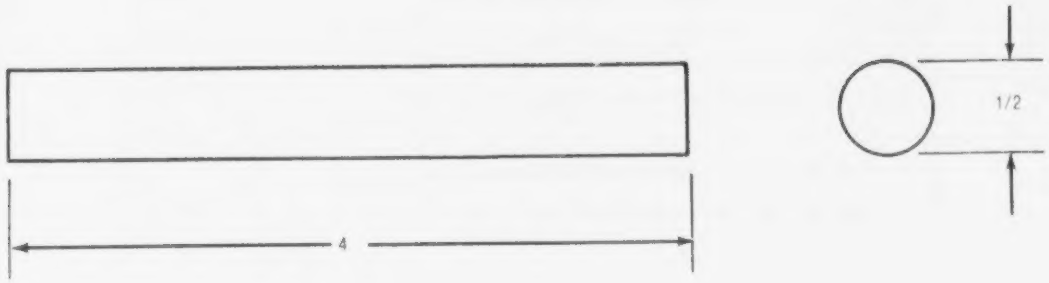
HEX KEY



NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

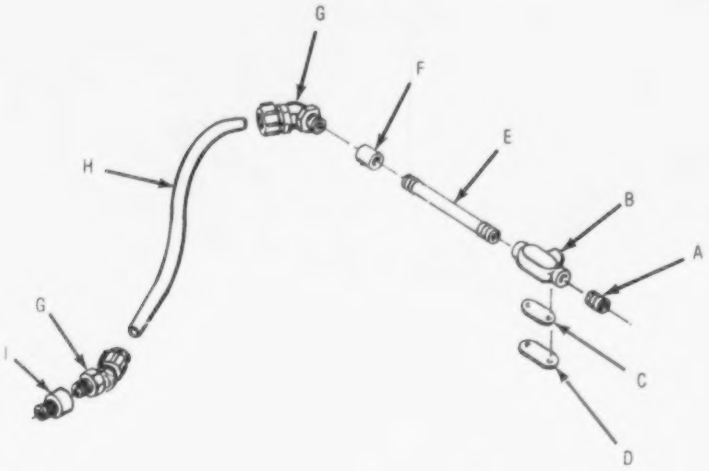
ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

BRASS ROD, 1/2 INCH DIAMETER BY 4 INCHES LONG



NOTES:
1. Fabricate from stock.
2. All dimensions are in inches.

9291510 FRONT CHASSIS CONDUIT GROUP (consisting of two conduit assemblies: front center conduit assembly in two sections, and front conduit assembly in three sections).



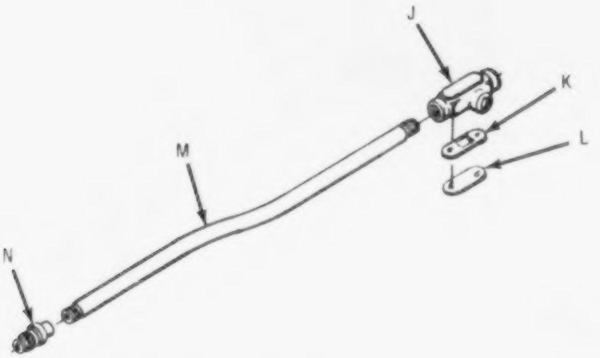
NOTES:

1. Cut and bend conduits to suit at installation.
2. Front center conduit assembly must be assembled in two sections. Final assembly of two sections must be made on vehicle.
3. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
4. Assemble following parts to make first section of front center conduit assembly.
5. Install Items C and D on conduit tee after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A		9291208	Conduit plug	1	ea
B	5975-00-052-1304	9322001	Conduit tee	1	ea
C	5330-00-241-0228	9322008	Cover gasket	1	ea
D	5975-01-082-6650	9322007	Fitting cover	1	ea
E		9291500-12	1/2 inch rigid conduit	1	ft
F		9291492	Conduit coupling	1	ea
G	5975-00-952-0021	9322087-1	Conduit angle connector	2	ea
H		9322120-3	1/2 inch flex conduit	1	ft
I		9322086-1	Conduit reducing bushing	1	ea

GO TO NEXT PAGE

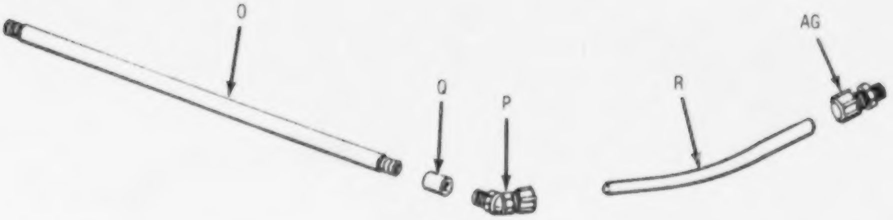
9291510 FRONT CHASSIS CONDUIT GROUP — Continued



NOTES:

6. Assemble N, M, and J after positioning on chassis, to make second section of front center conduit assembly.
7. Install Item J on conduit after installation of second section on vehicle.
   Install Items K and L on conduit tee after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
J		9322108	Conduit tee	1	ea
K	5330-01-083-2346	9322106	Cover gasket	1	ea
L	5975-01-082-8739	9322107	Fitting cover	1	ea
M		9291513	3/4 inch rigid conduit	1	ft
N		9290904	Rigid conduit union	1	ea



TES:

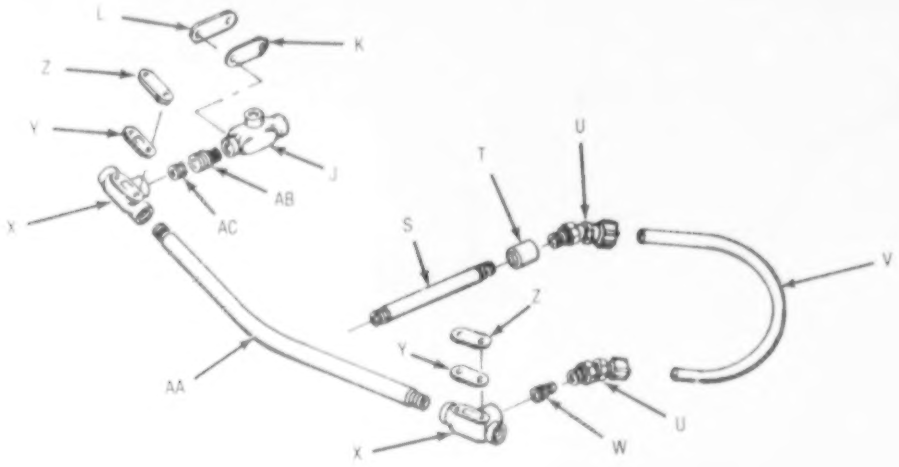
Assemble following parts to make first section of front conduit assembly.

Install Item O on Item P after installation of first section on vehicle.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
O		9322091-1	1 inch flex conduit	1	ft
P	5975-00-881-1523	9322087-3	45° Angle conduit connector	1	ea
Q		9291493	Conduit coupling	1	ea
R		9291499-4	1 inch rigid conduit	1	ft
AG	5975-00-959-1680	9322092	Liquidtight connector	1	ea

GO TO NEXT PAGE

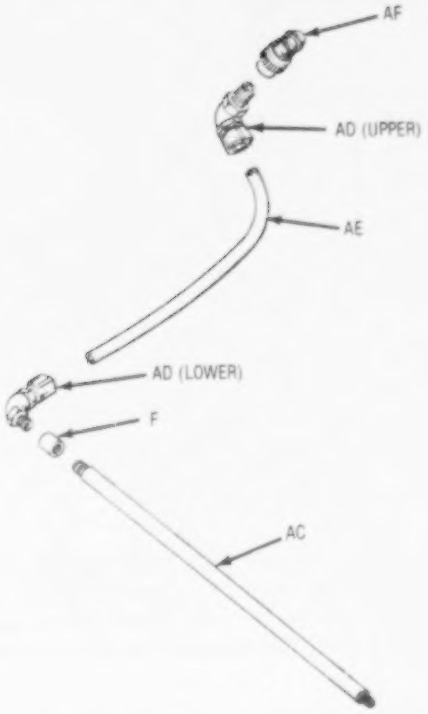
9291510 FRONT CHASSIS CONDUIT GROUP — Continued



NOTES:

10. Assemble following parts to make second section of front conduit assembly.
11. Install Items S and T after installation of second section on vehicle.
12. Install Items K, L, Y, and Z on conduit tees J and X after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
J		9322108	Conduit tee	1	ea
K	5330-01-083-2346	9322106	Cover gasket	1	ea
L	5995-01-082-8739	9322107	Fitting cover	1	ea
S		9291502-5	3/4 inch rigid conduit	1	ft
T		9291497	Conduit coupling	1	ea
U	5975-00-995-5259	9322087-2	Conduit angle connector	2	ea
V		9322088	3/4 inch flex conduit	1	ft
W		9322104	Reducing bushing	1	ea
X	5975-01-174-3601	9322116	Conduit tee	2	ea
Y	5330-01-083-2345	9322115	Cover gasket	2	ea
Z	5975-01-082-6649	9322114	Fitting cover	2	ea
AA		9291513	1 inch rigid conduit	1	ft
AB	5975-01-017-5672	9322117	Reducing bushing	1	ea
AC		9291494	Close nipple	1	ea



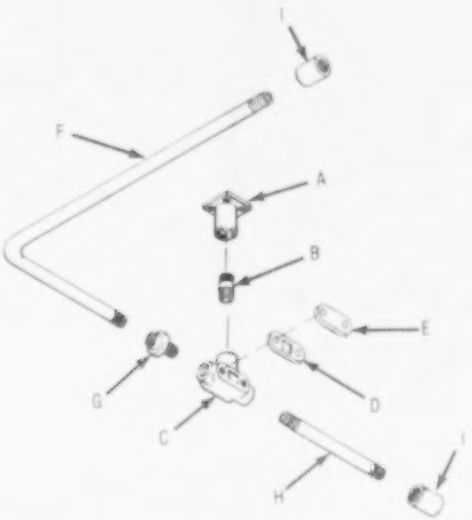
NOTES:

13. Assemble following parts to make third section of front conduit assembly.
14. Install Items AE, AD (upper), and AF on Item AD (lower) after installation of third section on vehicle.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
F		9291492	Conduit coupling	1	ea
AC		9291500-4	3/8 inch rigid conduit	1	ft
AD	5975-00-995-5260	9290902	90° conduit connector	2	ea
AE		9290911	3/8 inch flex conduit	1	ft
AF	5975-01-174-3564	9290912	90° rigid conduit union	1	ea

ILLUSTRATED LIST OF MANUFACTURED ITEMS -- Continued

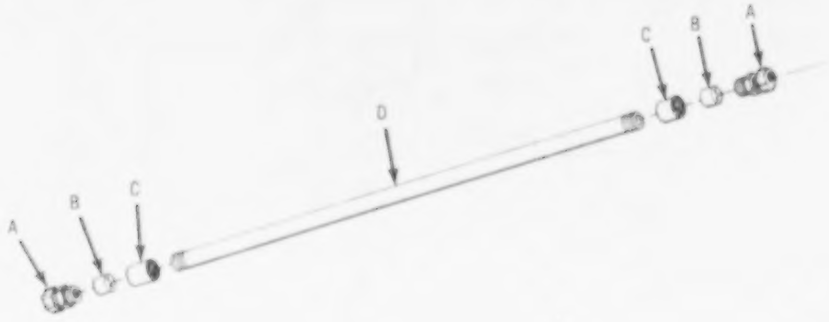
9291511 REAR LOWER CHASSIS CONDUIT GROUP



NOTES:
1. Cut and bend conduit to suit at installation.
2. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
3. Assemble following parts to make rear lower chassis conduit group.
4. Install Items D and E on conduit tee after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	5975-01-174-3746	9322085	Conduit hub	1	ea
B		9291496-1	Conduit nipple	1	ea
C	5975-00-052-1304	9322001	Conduit tee	1	ea
D	5330-00-241-0228	9322008	Cover gasket	1	ea
E	5975-01-082-6650	9322007	Fitting cover	1	ea
F		9291512	1/2 inch rigid conduit	1	ft
G		9291409	Conduit union	1	ea
H		9291500-5	1/2 inch rigid conduit	1	ft
I		9291492	Rigid conduit coupling	2	ea

9291515 TWO INCH CONDUIT ASSEMBLY



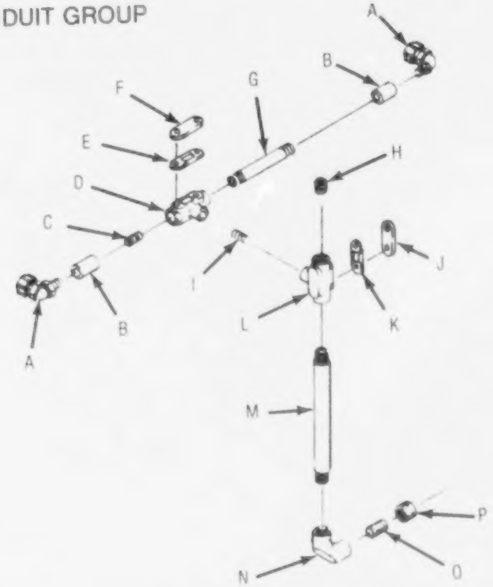
NOTES:

1. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
2. Assemble following parts on vehicle to make two inch conduit assembly.
3. Install Items A and B on conduit after installation of Battery Cables No. 1 and 2.
4. Items A and B are shown here only for completeness of this assembly.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	5975-01-175-1014	9322095	Cord grip connector	2	ea
B	5325-01-170-3957	9290763	Cord grip grommet	2	ea
C		9291501	Conduit coupling	2	ea
D		9291498	2 inch rigid conduit (84 inches long)	1	ft

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291518 MAIN CONTROL CONDUIT GROUP



NOTES:

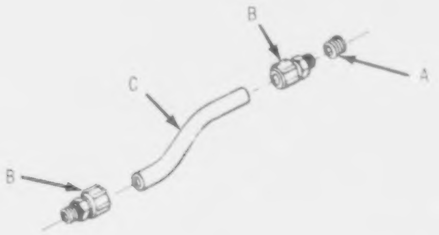
1. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
2. Assemble following parts to make main control conduit group.
3. Install Items E, F, K, L and cover of Item N on conduit tees and elbow after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	5975-00-803-2529	9322005	Cord grip connector	2	ea
B		9291492	Conduit coupling	2	ea
C		9291496-1	1/2 inch conduit nipple	1	ea
D	5975-00-052-1304	9322001	Conduit tee	1	ea
E	5330-00-241-0228	9322008	Cover gasket	1	ea
F	5975-01-082-6650	9322007	Fitting cover	1	ea
G		9291500-8	1/2 inch rigid conduit	1	ft
H	5975-00-296-9437	9322119	Cord grip connector	1	ea
I		9322086-1	Reducing bushing	1	ea
J	5975-01-082-8739	9322107	Fitting cover	1	ea
K	5330-01-083-2346	9322106	Cover gasket	1	ea
L		9322108	Conduit tee	1	ea

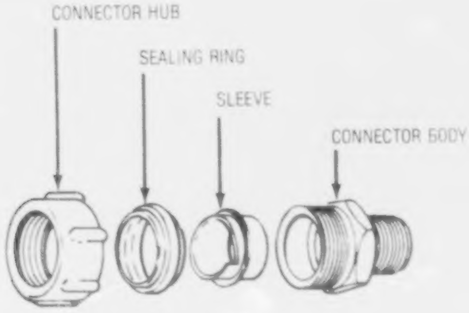
Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
M		9291502-2	3/4 inch rigid conduit	1	ft
N	5975-01-174-3565	9322102	Conduit elbow	1	ea
O		9291494	Conduit nipple	1	ea
P		9322086-2	Reducing bushing	1	ea

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291519 UPPER REAR CONDUIT ASSEMBLY (consisting of four sections).

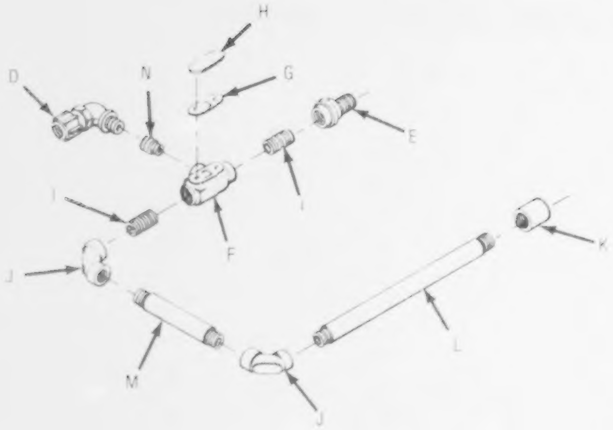


NOTES:
1. Cut and bend conduit to suit at installation.
2. Upper rear conduit assembly must be assembled in four sections. Final assembly of four sections must be made on vehicle.
3. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
4. Assemble following parts to make first section of upper rear conduit assembly.
5. Install Item A on vehicle separately.
6. Item B consists of four parts identified as follows:



Connector hub, sealing ring, and sleeve are installed on flex conduit at assembly. Connector body is installed during installation of first section on vehicle.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	5975-01-174-3563	9322111	Reducing bushing	1	ea
B	5975-00-959-1680	9322092	Straight connector	2	ea
C		9322091	1 inch flex conduit	1	ft



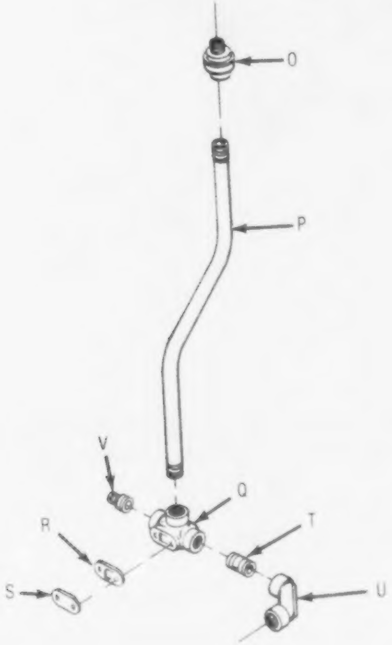
NOTES:

7. Assemble following parts to make second section of upper rear conduit assembly.
8. Install Items G and H of second section on conduit tee after installation of cable, wire bundle, or lead assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
D	5975-00-803-2529	9322005	Cord grip connector	1	ea
E	5975-01-017-5680	9322121	Conduit union	1	ea
F	5975-01-174-3601	9322116	Conduit tee	1	ea
G	5330-01-083-2345	9322115	Cover gasket	1	ea
H	5975-01-082-6649	9322114	Fitting cover	1	ea
I		9291491	Close nipple	2	ea
J		9322110	Conduit elbow	2	ea
K		9291493	Conduit coupling	1	ea
L		9291499-1	1 inch rigid conduit	1	ft
M		9291499-2	1 inch rigid conduit	1	ft
N	5975-01-017-5672	9322117	Reducing bushing	1	ea

GO TO NEXT PAGE

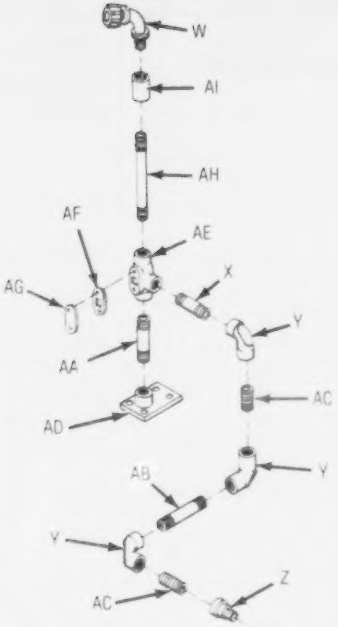
9291519 UPPER REAR CONDUIT ASSEMBLY — Continued



NOTES:

9. Assemble following parts to make third section of upper rear conduit assembly.
10. Install Items Q and R of third section on conduit tee after installation of cable, wire bundle, or lead assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
O	5975-01-017-5680	9322121	Conduit union	1	ea
P		9291516	1 inch rigid conduit	1	ft
Q	5975-01-174-3601	9322116	Conduit tee	1	ea
R	5330-01-083-2345	9322115	Cover gasket	1	ea
S	5975-01-082-6649	9322114	Fitting cover	1	ea
T		9291491	Close nipple	1	ea
U		9322110	Conduit elbow	1	ea
V	5975-01-174-3563	9322111	Conduit reducing bushing	1	ea



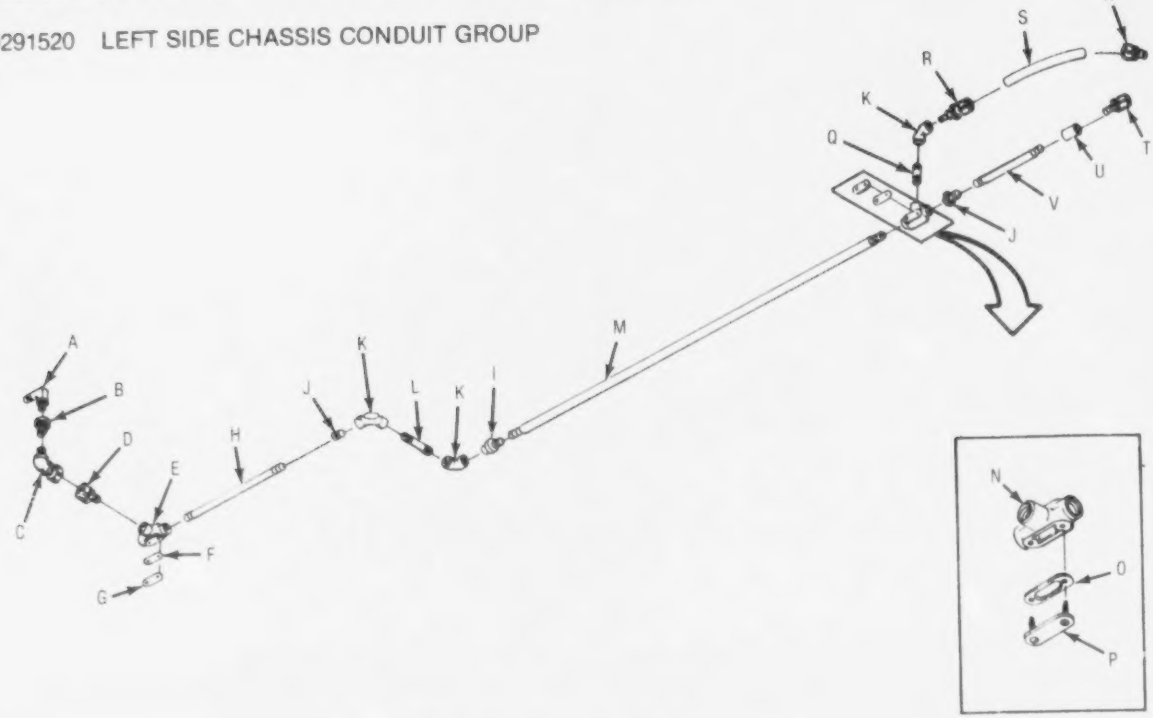
NOTES:

11. Assemble following parts to make fourth section of upper rear conduit assembly.
12. Install Items AF and AG of fourth section on conduit tee after installation of cable, wire bundle, or lead assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
W	5975-00-803-2529	9322005	Cord grip connector	1	ea
X		9291500-7	1/2 inch rigid conduit	1	ft
Y	5975-00-962-7015	9322002	Conduit elbow	3	ea
Z	4730-00-167-4004	9322109	Conduit union	1	ea
AA		9291500-11	1/2 inch rigid conduit	1	ft
AB		9291500-6	1/2 inch rigid conduit	1	ft
AC		9291496-1	Conduit nipple	2	ea
AD	5975-01-174-3746	9322085	Conduit hub	1	ea
AE	5975-00-052-1304	9322001	Conduit tee	1	ea
AF	5330-00-241-0228	9322008	Cover gasket	1	ea
AG	5975-01-082-6650	9322007	Fitting cover	1	ea
AH		9291500-10	1/2 inch rigid conduit	1	ft
AI		9291492	Conduit coupling	1	ea

ILLUSTRATED LIST OF MANUFACTURED ITEMS — Continued

9291520 LEFT SIDE CHASSIS CONDUIT GROUP



NOTES:

1. Apply sealing compound (Item 25, Appendix B) to all pipe threads.
2. Assemble following parts on vehicle to make left side chassis conduit group.
3. Install Items F, G, O, and P on conduit tees after installation of cable assemblies.

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
A	5975-01-174-3564	9290912	Rigid conduit union	1	ea
B	5975-01-017-5672	9322117	Conduit reducing bushing	1	ea
C	5975-00-803-2529	9322005	Cord grip connector	1	ea
D	5975-00-296-1669	9317978	Cord grip connector	1	ea
E	5975-01-174-3601	9322116	Conduit tee	1	ea
F	5330-01-083-2345	9322115	Cover gasket	1	ea
G	5975-01-082-6649	9322114	Fitting cover	1	ea
H		9291499-5	1 inch rigid conduit	1	ft
I	5975-01-175-2030	9290909	Rigid conduit union	1	ea
J	5975-01-174-3563	9322111	Conduit reducing bushing	2	ea
K	5975-01-175-2031	9290908	Conduit elbow	3	ea

Item Letter	National Stock Number	Part Number	Description	Quantity	U/M
L		9291495-2	1 1/4 inch rigid conduit	1	ft
M		9291495-1	1 1/4 inch rigid conduit	1	ft
N	5975-01-175-3326	9290905	Conduit tee	1	ea
O		9290907	Cover gasket	1	ea
P	5975-01-175-3327	9290906	Fitting cover	1	ea
Q		9291495-3	Rigid conduit	1	ea
R	5975-00-913-9184	9290914	Conduit straight connector	2	ea
S		9290913	1 1/4 inch flexible conduit	1	ft
T	5975-00-844-7083	9322118	Cord grip connector	1	ea
U		9291493	Conduit coupling	1	ea
V		9291499-3	1 inch rigid conduit	1	ft

GLOSSARY

Section I. ABBREVIATIONS

AWG	American Wire Gage
BACP	B.I.T.E./ALARM CONTROL PANEL
BACPCP	B.I.T.E./ALARM CONTROL PANEL checkout procedure
BE	Bale
B.I.T.E.	Built in test equipment
BT	Bottle
BTRY/GEN	Battery/generator
btu	British thermal unit
bu	Bundle
Buna N	Type of rubber
cap	Capacitor
CB	Circuit breaker
CBR	Chemical, biological, and radiological
CCA	Circuit card assembly
cm	Centimeter
CN	Can
Com C	Common center
Com F	Common front
Com R	Common rear
COOLANT TEMP	Coolant temperature
CRA	Card rack assembly
cu	Cubic
°C	Degree Celsius temperature
°F	Degrees Fahrenheit temperature
dr	Drum
E	Exhaust
ea	Each
EIR	Equipment improvement report
ELEC POWER	Electric power
ENGINE HRS	Engine hours
FO	Foldout
ft lb	Foot pound
g	Gram
gal	Gallon
gl	Gallon
Hg	Mercury
hr	Hour
HSTRU	Hydraulic Systems Test and Repair Tool Outfit
I	Intake
ID	Inside diameter
in. lb	Inch pound
kg	Kilogram
kJ	Kilo joule
kPa	Kilo pascal
KT	Kit
lb	Pound
m	Meter

GO TO NEXT PAGE

GLOSSARY — Continued

max	Maximum
MCP	MAIN CONTROL PANEL
min	Minimum
mkg	Meter kilogram
MS	Military specification
NATO	North Atlantic Treaty Organization
OCB	Operator control box
OCBT	Operator control box test
OCP	Operator control panel
OD	Outside diameter
osc	Oscillator
Para	Paragraph
PB	Pushbutton
P.C. board	Printed circuit board
PG	Package
PL	Places
PMCS	Preventive maintenance checks and services
psi	Pounds per square inch
PT	Pint
qty	Quantity
R	Radius
R	Resistor
REF	Reference
rl	Reel
RO	Roll
rpm	Revolutions per minute
RPSTL	Repair parts and special tools list
servo	Servo actuator
SH	Sheet
SL	Spool
ssu	Saybolt seconds universal (unit of measure of viscosity)
SW	Switch
TAMMS	The army maintenance management system
T.A.P.S.	Transmitter Auxiliary Power Supply
TB	Terminal board
TM	Technical manual
TMDE	Test, measurement, and diagnostic equipment
Tu	Tube
U/M	Unit of measure
V dc	Volts direct current
VR	Voltage regulator

Section II. DEFINITION OF UNUSUAL TERMS

Accumulator — Container that stores gas or fluid under pressure.

Appendix — Chapter of detailed information at the end of a technical manual.

Bleeder Valve — Valve designed to release entrapped air from an enclosed fluid system such as a hydraulic system.

Bus bar — Heavy copper bar or strap used to carry heavy current or to make a common connector between several circuits.

Circuit — Set of tubes, hoses, or electrical wires through which fluid or electrical current flows.

Clevis—Two piece machine part used to join two other parts.

Composite—Two or more assemblies joined to make one.

Continuity — Unbroken circuit.

Conveyor — Belt or chain that moves parts from one place to another.

Corrosion — Damage to metal caused by acid or the elements.

Diaphragm—Thin disk that vibrates or pulsates to transmit pressure.

Flange — Rim on a part. Use to guide or attach another part.

Flared — Wide end of a tube.

Gap — Distance between two parts.

Hydraulic — Operated by fluid pressure.

Impeller — Rotor with blades designed to move fluids in a system.

Inadvertent — By mistake, not on purpose.

Lanyard — Short chain, rope, or wire used to pull another part.

Lunette—Towing eye mounted on chassis front.

Manifold — A pipe fitting used to transfer fuel and air from engine cylinders to exhaust.

Mine gate pin — Prevents mines from accidentally entering launcher and being fired.

NATO receptacle — Standard power receptacle adopted for use on all NATO vehicles.

Null screw — Screw that can be adjusted to a balanced condition that results in zero output.

GO TO NEXT PAGE

GLOSSARY — Continued

Pallet — Support part of an engine.

Pawl — A pivoted tongue that falls between teeth on a ratchet wheel, to permit rotation in one direction only.

Pintle—Towing pin mounted on chassis rear and having a safety latch.

Pivot—To turn around a center point.

Pneumatic — Operated by or filled with air.

Potentiometer — Instrument used to measure or compare voltages.

Puck — Pad of braking material attached to a caliper in a disc brake system.

Race — A track or channel in which bearings roll.

Rheostat — Variable resistor that has one fixed terminal and a movable contact.

Shrink tubing — Insulating tubing placed over electrical connections and heated to shrink to a tight fit.

Slave cable — Electrical cable designed to connect the NATO receptacles on two vehicles.

Solenoid — Electrically operated switch or valve.

Spline — Shaft tooth or key that fits into a keyway on another part.

Surge—To rise suddenly to an abnormally high value.

Swage—To shape metal with a hammer and special tool.

Swivel — A device joining two parts so that one or both can pivot freely.

Tabular — Arranged in vertical rows.

Terminal — Electrical circuit part where wires are attached.

Thermostat — Switch that is operated by temperature change.

Transmitter — Electrical part that sends signals.

Trunnion—Tube on which springs are mounted to allow tandem wheels to tilt with terrain.

ALPHABETICAL INDEX

Subject, Page

C

Cable Assembly and Switch 3PB, Pushbutton Control Station (See Right Magazine Control Wiring Installation), 20-3
Cable Assembly and Switch 4PB, Pushbutton Control Station (See Right Magazine Control Wiring Installation, 20-55
Cable Assembly J47 (See Left Magazine Control Wiring Installation), 20-3
Cable Assembly J48 (See Right Magazine Control Wiring Installation), 20-55
Cable Assembly P12 (See Right Magazine Control Wiring Installation), 20-55
Cable Assembly P13 (See Left Magazine Control Wiring Installation), 20-3
Cable Assembly P27 (See Left Magazine Control Wiring Installation), 20-3
Cable Assembly P28 (See Right Magazine Control Wiring Installation), 20-55
Cable Assembly P39 (See Left Magazine Control Wiring Installation), 20-3
Chassis Conduit Group, Rear Lower (See Rear Lower Chassis Conduit Group), 20-151
Common Tools and Equipment, 20-1
Conduit, Left Magazine (See Left Magazine Conduit), 20-35
Conduit, Right Magazine (See Right Magazine Conduit), 20-83
Conduit Assembly, Front (See Front Chassis Conduit Group), 20-129
Conduit Assembly, Front Center (See Front Chassis Conduit Group), 20-129
Conduit Assembly, Two Inch (See Two Inch Conduit Assembly), 20-107
Conduit Assembly, Upper Rear (See Upper Rear Conduit Assembly), 20-161
Conduit Group, Front Chassis (See Front Chassis Conduit Group), 20-129
Conduit Group, Left Side Chassis (See Left Side Chassis Conduit Group), 20-113

Subject, Page

Conduit Group, Main Control (See Main Control Conduit Group), 20-155
Conduit Group, Rear Lower Chassis (See Rear Lower Chassis Conduit Group), 20-151
Connector P15 (See Left Magazine Control Wiring Installation), 20-3
Connector P18 (See Right Magazine Control Wiring Installation), 20-55
Control Station Cable Assembly and Switch 3PB, Pushbutton (See Left Magazine Control Wiring Installation), 20-3
Control Station Cable Assembly and Switch 4PB, Pushbutton (See Right Magazine Control Wiring Installation), 20-55
Control Wiring Installation, Left Magazine (See Left Magazine Control Wiring Installation), 20-3
Control Wiring Installation, Right Magazine (See Right Magazine Control Wiring Installation), 20-55

F

Front Center Conduit Assembly (See Front Chassis Conduit Group), 20-129
Front Chassis Conduit Group
  Front Center Conduit Assembly
    Installation, 20-129
    Removal, 20-129
  Front Conduit Assembly
    Installation, 20-129
    Removal, 20-129
Front Conduit Assembly (See Front Chassis Conduit Group), 20-129

I

Internal Wiring Harness, Left (See Left Magazine Control Wiring Installation), 20-3
Internal Wiring Harness, Right (See Right Magazine Control Wiring Installation), 20-55

GO TO NEXT PAGE

ALPHABETICAL INDEX — Continued

Subject, Page

L

Left Magazine Conduit
  Installation, 20-35
  Removal, 20-35
Left Magazine Control Wiring
  Installation
    Cable Assembly J47
      Installation, 20-3
      Removal, 20-3
    Cable Assembly P13
      Installation, 20-3
      Removal, 20-3
    Cable Assembly P27
      Installation, 20-3
      Removal, 20-3
    Cable Assembly P39
      Installation, 20-3
      Removal, 20-3
    Connector P15
      Installation, 20-3
      Removal, 20-3
    Left Magazine Internal Wiring
      Harness
        Installation, 20-3
        Removal, 20-3
    Pushbutton Control Station
      Cable Assembly and Switch 3PB
        Installation, 20-3
        Removal, 20-3
    Left Magazine Control Wiring
      Bundle
        Installation, 20-3
        Removal, 20-3
Left Side Chassis Conduit Group
  Installation, 20-113
  Removal, 20-113
Lower Chassis Conduit Group, Rear (See Rear Lower Chassis Conduit Group), 20-151

M

Magazine Conduit, Left (See Left Magazine Conduit), 20-35
Magazine Conduit, Right (See Right Magazine Conduit), 20-83
Magazine Control Wiring Installation, Left (See Left Magazine Control Wiring Installation), 20-3

Subject, Page

Magazine Control Wiring Installation, Right (See Right Magazine Control Wiring Installation), 20-3
Main Control Conduit Group
  Installation, 20-155
  Removal, 20-155

P

Pushbutton Control Station Cable Assembly and Switch 3PB (See Left Magazine Control Wiring Installation), 20-3
Pushbutton Control Station Cable Assembly and Switch 4PB (See Right Magazine Control Wiring Installation), 20-55

R

Rear Conduit Assembly, Upper (See Upper Rear Conduit Assembly), 20-161
Rear Lower Chassis Conduit Group
  Installation, 20-151
  Removal, 20-151
Repair Parts, 20-1
Right Magazine Conduit
  Installation, 20-83
  Removal, 20-83
Right Magazine Control Wiring
  Installation
    Cable Assembly J48
      Installation, 20-55
      Removal, 20-55
    Cable Assembly P12
      Installation, 20-55
      Removal, 20-55
    Cable Assembly P28
      Installation, 20-55
      Removal, 20-55
    Connector P18
      Installation, 20-55
      Removal, 20-55
    Right Magazine Internal Wiring
      Harness
        Installation, 20-55
        Removal, 20-55

Subject, Page

Right Magazine Control Wiring
Installation — Continued
    Pushbutton Control Station
        Cable Assembly and Switch 4PB
            Installation, 20-55
            Removal, 20-55
    Right Magazine Control Wiring
        Bundle
            Installation, 20-55
            Removal, 20-55
Right Magazine Control Wiring
    Bundle
        Installation, 20-55
        Removal, 20-55
Right Magazine Internal Wiring Harness
    Installation, 20-55
    Removal, 20-55

S

Special Tools, TMDE, and Support
    Equipment, 20-1

T

Two Inch Conduit Assembly
    Installation, 20-107
    Removal, 20-107

Subject, Page

U

Upper Rear Conduit Assembly
    Installation, 20-161
    Removal, 20-161

W

Wiring Bundle, Left Magazine Control
    (See Left Magazine Control Wiring
    Installation), 20-3
Wiring Bundle, Right Magazine Control
    (See Right Magazine Control Wiring
    Installation), 20-55
Wiring Harness, Left Magazine Internal
    (See Left Magazine Control Wiring
    Installation), 20-3
Wiring Harness, Right Magazine Internal
    (See Right Magazine Control Wiring
    Installation), 20-55
Wiring Installation, Left Magazine
    Control (See Left Magazine Control
    Wiring Installation), 20-3
Wiring Installation, Right Magazine
    Control (See Right Magazine Control
    Wiring Installation), 20-55

END OF INDEX

Charts Transposed to

End of Volume.

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

Distribution:
To be distributed in accordance with DA Form 12-40, Direct Support and General Support maintenance requirements for M128 Ground Vehicle Mine Dispenser.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1990 O - 261-872 (21330)

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN . . . JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)
Your military address

DATE SENT
Date you filled out form

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 9-1095-205-34-7	1 Sep 84	Direct Support/General Support Maintenance — M128 Ground Vehicle Mine Dispenser

BE EXACT PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	
20-72	20-6			Nut in step 6 is too tight to be removed easily with slip joint pliers. Please provide a different tool with which to remove nut.

SAMPLE

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
Michael Horn, SP4, Autovon 972 9728

SIGN HERE
Michael Horn

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER TM 9-1095-205-34-7	PUBLICATION DATE 1 Sep 84	Direct Support/General Support Maintenance — M128 Ground Vehicle Mine Dispenser

BE EXACT... PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER	SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
U.S. Army Armament, Munitions and Chemical Command
ATTN: DRSMC-MAS (R)
Rock Island, IL 61299

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN. . JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER TM 9-1095-205-34-7	PUBLICATION DATE 1 Sep 84	Direct Support/General Support Maintenance — M128 Ground Vehicle Mine Dispenser

BE EXACT	PIN-POINT WHERE IT IS			IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER	SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

____

____

OFFICIAL BUSINESS

Commander
U.S. Army Armament, Munitions and Chemical Command
ATTN: DRSMC-MAS (R)
Rock Island, IL 61299

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN . . JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG **WITH THIS PUBLICATION?**

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER TM 9-1095-205-34-7	PUBLICATION DATE 1 Sep 84	Direct Support/General Support Maintenance — M128 Ground Vehicle Mine Dispenser

BE EXACT . . . PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

TEAR ALONG PERFORATED LINE

REVERSE OF DA FORM 2028-2

FILL IN YOUR
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
U.S. Army Armament, Munitions and Chemical Command
ATTN: DRSMC-MAS (R)
Rock Island, IL 61299

TEAR ALONG PERFORATED LINE

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 Lb
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet
1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

TEMPERATURE

5/9 (°F − 32) = °C
212° Farenheit is equivalent to 100° Celsius
90° Farenheit is equivalent to 32.2° Celsius
32° Farenheit is equivalent to 0° Celsius
9/5 (°C) + 32 = °F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pounds per Square Inch	Kilopascals	6.895
Pounds per Square Inch	Kilograms per Square Centimeter	0.070
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Kilograms per Square Centimeter	Pounds per Square Inch	14.220
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621